The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

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PUBLIC RELATIONS IN ILLINOIS

The Illinois State Medical Society has been interested in medical public relations over a period of years, and during that time much has been accomplished. However, it was not until four years ago that a public relations director was selected to supervise these various activities and aid in the development of an overall program for the future.

The public relations activities in this Society were placed under the direct supervision of the Committee on Medical Service and Public Relations, a constitutional committee. Many meetings were held to discuss the problems and arrange a suitable program. Additions were made to the duties of the public relations director from time to time. The last revision of the program was put into effect nearly two years ago. It was the opinion of the Committee that the Council should receive its recommendations for an expanded program, and the report of the Chairman of the Committee, Dr. Percy E. Hopkins, was presented at the regular meeting of the Council on January 7, 1951.

The new war effort was considered. Under the guise of "critical necessity" efforts might be made to increase socialistic trends and place more burdens on the federal government. The November elections showed definitely that the American people are desirous of retaining their autonomy to the greatest extent possible. It was most heartening to note the large number of voters who went to the polls on November 7 last year.

The medical profession has always done everything possible in time of war to aid the country. This is well illustrated by the large number of physicians and members of allied professions who have left their private practices to join the medical corps of the armed forces. In the present crisis this will be done again.

In considering this proposed program of medical public relations, the keynote will be the stimulation of greater and more intensive participation by individuals and county medical societies in the overall public relations efforts of organized medicine.

The officers of the state medical society and its committees will ask each component society to devote one of its meetings during the next few months to the general subject of public relations. In the smaller counties, efforts will be made to combine several for joint meetings. These meetings will be addressed by various speakers who will outline the work of the Society and the public relations programs to develop unity of effort and singleness of purpose into our functioning. The details of the whole operation will be explained in these talks.

Two years ago the Speakers' Bureau was

created within the Public Relations structure. Although it has functioned well, it should be strengthened. Speakers should be developed in all sections of the state in addition to those already recruited, to discuss the many problems of present day medical public relations problems, and to recommend those things which individuals and component societies can do as their part in the overall program.

A public relations committee should be set up in many of the larger counties throughout the state. Many societies already have the nucleus which can be used in an expanded program. County society officers and members should begin now to plan and synchronize these meetings. They should be sure that they have members on their committees who can function to the best advantage of all concerned. A good job in public relations has been done at the national and at the state level. It is quite apparent that the county level is where more work can and should be done to further the gains which have been made during recent months.

HISTOPLASMOSIS

Histoplasmosis is an old disease which recently has undergone rejuvenation. For many years it was considered to be a rare and fatal condition, but it is known now that a mild and more prevalent form exists. Most of these cases went unrecognized; the remainder were misdiagnosed as primary tuberculosis. Oddly enough the pendulum of this disease is swinging from complete obscurity to a prevalence in certain areas that is endemic in proportion. This is true particularly of Missouri, Tennessee, Kentucky and Southern Ohio. Since some of these states border on Illinois we too must be on the alert and include histoplasmosis in the differential diagnosis of a variety of diseases.

The acute systemic form is well known to pathologists. The disease process in the lungs mimics tuberculosis in that cavitation and other localized clinical phenomena occur. The absence of the tubercle bacillus in the sputum suggests the diagnosis and if further studies are done, the histoplasma capsulatum can be demonstrated by culture. Such cases usually run a fulminating course and are fatal. But all too often the infection is more generalized. The first symptoms are those of an ulcer of the mouth, tongue or oral pharynx. This is accompanied or followed by a fever, weight loss, anemia, leukopenia, splenomegaly, hepatomegaly and occasionally, a generalized lymph adenopathy. In fact the disease should be suspected in cases of unexplained splenomegaly and hepatomegaly especially if accompanied by irregular fever, leukopenia and anemia. This clinical picture usually calls for a bone marrow puncture and aspiration; the organisms in the cells of the marrow are detected usually by direct smear or culture. There are cutaneous papular lesions which often ulcerate and leave deep punched out ulcers. Cutaneous lesions of the genitalia also may develop. Endocarditis is another possibility when the disease is generalized and now and then destructive lesions of the joints are noted. Nodules and ulcerations of the stomach and bowel, even leading to the diagnosis of ulcerative colitis have been reported.

But the acute systemic form is the exception rather than the rule. It is the small miliary lesion in the chest that probably represents the most common manifestation. The lesion has all the ear marks of tuberculosis, yet, there is a negative tuberculin reaction. It was this discovery that led Christie and Peterson[1] of the United States Public Health Service to prepare a skin test for histoplasmosis which was similar to that for tuberculosis. They found that a high percentage of those with positive chest findings and negative tuberculin tests reacted to the new histoplasmin substance. In addition, their findings were most consistent in areas where the highest incidence of fatal histoplasmosis had been reported previously. The condition has had its face lifted but in all probability it is harmless, except for the occasional case that proves fatal.

(1) Ann. Int. Med., 28:867, Apr. 1948.

MEDICAL ADVISORY COMMITTEE TEN YEARS OLD

Ten years ago at the request of the Illinois Public Aid Commission, the Illinois State Medical Society named a medical advisory committee to work with the officials of the I.P.A.C. to set up medical standards for medical care of their recipients. Realizing that these clients were people in low income groups, and the funds available would not permit payment of regular rates for services rendered, the committee

Dr. E. P. Coleman accepting certificate from Henry F. Tenney, Chairman, Illinois Public Aid Commission.

through the years, has had unusual responsibilities. It has not been possible to meet the demands of some of the physicians who work under the plan, but the fault has not been on the part of the committee, nor has it been directly due to I.P.A.C. personnel, for their budgets have not permitted payment of regular fees.

From year to year however, there has been a gradual increase in many of the rates and it is hoped in coming months further improvements will be made possible in keeping with the increase in essential commodities in general. At the meeting of the Medical Advisory Committee and the I.P.A.C. personnel held in Chicago January 6, the chairman of the Illinois Public Aid Commission, Henry F. Tenney presented a framed certificate to Everett P. Coleman, chairman of the advisory Committee. The certificate reads as follows:

TENTH ANNIVERSARY CITATION

In sincere appreciation of meritorious service and in commemoration of ten years of unselfish devotion to humanitarian objectives, the Illinois Public Aid Commission confers this tenth anniversary testimonial upon The Illinois State Medical Society's Advisory Committee To The Illinois Public Aid Commission for superb professional guidance of its medical assistance program, for helping to interpret the program to the physicians of Illinois without whose complete cooperation the program could not have flourished, and for contributing time, energy, and advice for the benefit of the ill and afflicted.

The Illinois State Medical Advisory Committee, an official committee of the Illinois State Medical Society, was organized in January 1941 to assist the State in developing a plan for providing medical care to needy mothers and children and to the indigent aged. In July 1943 it expanded its activities to include the blind and the unemployed and in 1950 its responsibilities were further increased to encompass the permanently and totally disabled. The Committee has borne its ever growing burden steadily and without complaint — modestly and without publicity — constantly and without faltering.

The Roll of Honor of those who have served includes the names of some of Illinois' most distinguished physicians. The Commission expresses its gratitude to each of them — to Drs. E. P. Coleman of Canton, Chairman; Charles P. Blair, Monmouth; Harold M. Camp, Monmouth; Harlan English, Danville; E. S. Hamilton, Kankakee, Harry M. Hedge. Chicago; Julius H. Hess, Chicago; B. E. Montgomery, Harrisburg; and T. R. Van Dellen, Chicago, who now constitute the Committee — and to Drs. Charles H. Phifer, Chicago, former Chairman; Robert S. Berghoff, Chicago; Oscar Hawkinson, Chicago; Percy E. Hopkins, Chicago; James H. Hutton, Chicago; John R. Neal (deceased), Chicago; Irving H. Neece, Decatur; Walter Stevenson, Quincy; James S. Templeton, Pinckneyville; and E. H. Weld, Rockford, who have served previously.

This Testimonial is presented by direction of the Commission pursuant to a Resolution unanimously adopted at its meeting of November 8, 1950.

For the Commission

Carl K. Schmidt Jr.,
Executive Secretary

Henry F. Tenney,
Chairman

January 1951

FORMATION OF AMERICAN MEDICAL EDUCATION FOUNDATION

The action of the Board of Trustees at the Cleveland meeting in appropriating one-half million dollars as the Association's initial contribution to an annual fund to be raised by the medical profession to assist the medical schools has been widely applauded as one of the most constructive and important programs ever undertaken by the American Medical Association. In announcing the establishment of this fund, the Board of Trustees expressed the hope that the Association's contribution would be greatly augmented by gifts from many other sources and urged all members of the Association to contribute individually. The initial response of the profession has been most gratifying. Many physicians in attendance at the Cleveland meeting inquired how they should make their contributions, and since the meeting letters requesting similar information have been received daily at Association headquarters.

It can now be announced that the American Medical Education Foundation has been established as a not-for-profit corporation, under the laws of the state of Illinois, to receive and distribute contributions to the fund from the individual members of the medical profession and friends of the profession. The Commissioner of Internal Revenue has been asked to rule that gifts to the foundation will be deductible in the computation of income taxes. An 11 man board of directors chosen from the Board of Trustees, the officers of the Association and the Council on Medical Education and Hospitals will be responsible for arranging for the distribution of the funds to all approved medical schools. The funds are to be unrestricted, with each medical school free to determine how it can best use its share to further the basic training of its students. It is planned that the foundation will coordinate its activities closely with other major efforts to raise funds for medical education from voluntary sources, which it is hoped will be announced shortly.

Each member of the medical profession is urged to demonstrate his support of this new undertaking by contributing promptly and generously. Because of rising costs, inflation, fewer large individual benefactions and reduced incomes from endowments, the medical schools need, without further delay, assistance of the type this fund can give. It is the desire of the foundation that the first annual disbursement of funds to the medical schools may be made this spring. It is clear that, if the foundation's contribution is to be an effective one, a substantial fund must be raised by the medical profession within the next few months. It is therefore urged that each physician consider an annual contribution of $100. Many of the contributions already received exceed this figure. When a physician feels that this amount is beyond his means, smaller contributions will be welcome, but the profession must recognize that substantial sums are required and that token contriubtions alone will not be sufficient.

Almost every physician now practicing received his medical education for less than what it cost his medical school. While many physicians have discharged this debt to society in full or in part, by public and charitable activities and by donations to the schools with which they have been associated, many are still indebted to one or more medical schools for their training as students, interns or residents. Furthermore, the medical profession has traditionally accepted a large measure of responsibility for the training of the continuing flow of young physicians, on which it must depend for recruits and replacements in its efforts to serve humanity. It is to be expected, therefore, that all physicians, regardless of the other contributions they may have made to society, will want to share in the responsibility of making the foundation a success.

The American Medical Association has indicated its belief that the possibilities of securing adequate support for medical education from voluntary sources are far from exhausted. To prove this, actions as well as words are required. The challenge has now been made directly to the medical profession. The members of the profession can meet this challenge by sending their contributions today to the American Medical Education Foundation, 535 North Dearborn Street, Chicago 10.—*Editorial J.A.M.A.* Jan. 20, 1951

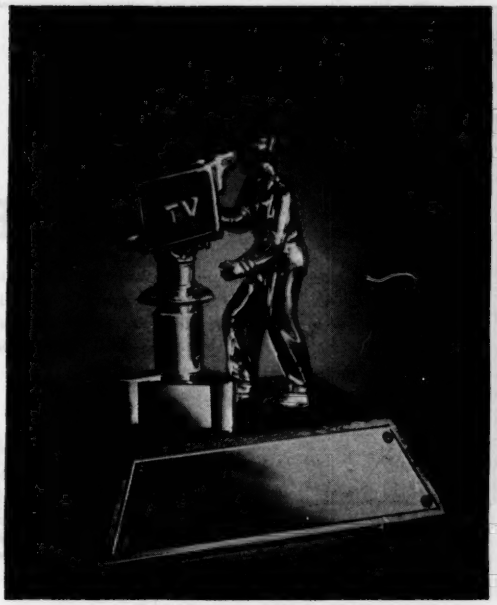
HEALTH TALK WINS AWARD

A gold statuette, signifying first place honors in the classification "Forum and Discussion", was awarded to Health Talk, the weekly telecast produced by the Educational Committee of the Illinois State Medical Society in association with WGN-TV, February 5. The honor was the result of the second annual poll conducted by *Television Forecast*, weekly trade magazine, among its more than 160,000 subscribers. Health Talk placed fifth in a similar classification in the first poll.

Formal presentation of the award was made on the telecast, February 5, by Robert A. Kubicek, editor of Television Forecast. Harry M. Hedge, President, accepted the honor in behalf of the Illinois State Medical Society.

Health Talk, now in its third year, has achieved national recognition for its pioneer efforts, not only in the production of the program, but for establishing such firsts as the fluoroscopic image of the living heart for public viewing, a simulated operation, an actual demonstration of anesthesia in the operating room, the visual image of the human larynx, and the application of a cast.

Sharing the honors with the Illinois State Medical Society in the recent presentation are WGN-TV and members of its staff who have given time an effort to achieve expert direction and camera work.



Dr. Theodore R. Van Dellen, the moderator, has maintained a high level of pace and presentation for the twenty-six months the program has been on the air.

That a public viewing audience chose to list Health Talk first in its classification proves that people everywhere are interested in sincere health education.

FREQUENCY OF ACUTE PANCREATITIS

Acute pancreatitis most likely occurs more often than statistics show. The disease is a chemical one initially, and gallbladder disease, reflux of bile, alcoholism, and pancreatic duct obstructions are involved in its development. Most important in the diagnosis is thinking of the disease, and a high serum amylase level in confirmatory. The aim of treatment is to put the pancreas at rest. Dramatic relief is obtained from splanchnic block, and Demerol is the analgesic of choice. Blood calcium levels are of value in following therapy and for prognosis. Late complications requiring surgery should be anticipated. *Excerpt: Acute Diseases of the Pancreas. Charles D. Reece, M.D., and John B. Burrows, M.D., Houston, Tex., Tex. S.J.M., Nov* 1950.

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chairman, John R. Wolff, Co-Chairman, Edwin F. Hirsch, Carroll Birch, Hubert L. Allen, Frederick W. Slobe, Edward W. Cannady, Ford K. Hick, W. Robert Maloney, Roland R. Cross, Alfred P. Bay, Frederick T. Jung.

The Call of the Wild

During recent years, there has been a tendency, especially among young men finishing medical school, to feel that they must locate in a city in order to have an enjoyable and profitable lifetime. There is much to be gained in the way of a satisfactory life in a smaller community.

Because of the trend among young professional men, rural communities have a certain shortage of professional individuals, and this shortage may become acute during the next few years. Many rural communities have made a definite effort to attract young men into practicing in their towns. The state of Kansas has a plan on a state-wide basis and in cooperation with the University of Kansas College of Medicine. The Illinois State Medical Society in cooperation with the Illinois Agricultural Association has such a program on a much more limited basis. Some communities have a community project and offer special inducements to get a young physician to locate there. Several have been successful in this endeavor.

Now to mention some of the advantages that a young professional man will find in a small town that he will not immediately discover in a city. In the first place, it is generally understood that he will find a spirit of welcome. When he first goes into a small town, the general reaction is that the business men and the other professional men will go out of their way to aid him in obtaining office space, living quarters and equipment. It is not unusual to find that business men may extend to him sizeable amounts of credit without security. In many places, the financial institutions will also extend aid and assistance beyond their usual mode of operation. All of this points to the fact that the young man is welcomed to the community and very often he is helped a good deal in getting himself located, and his practice started.

A second and somewhat similar attitude can be described as neighborliness. When he locates in a small town, the people who live next to him immediately become his acquaintances. When he sees them outside around their homes a friendly conversation is usually established. In addition, when the new resident goes walking down the street of the business district, he is often greeted by many of the people he passes. If he is so inclined, he can spend a good deal of time, if he simply stops and gets into a conversation; and if he will spend a little time in

the barber shop and the drug store, he can very easily round out his information regarding the happenings of the community that have not been published in the local newspaper.

Generally speaking, the young professional man who starts practice in a small community will find that his income is fairly satisfactory right from the start. He will not have nearly as long a waiting period as he would if he were lost in the shuffle of a big city. This can be a great advantage.

He will find that in these days there are pretty satisfactory means of maintaining his professional knowledge at a high level as regards the new and advanced types of thinking in this kind of work. More and more these days professional men leave their home communities for various lengths of time to take refresher courses at centers of learning. The professional publications that one may use are many. Most small communities have adequate hospital facilities for the professional man to use in his practice.

There is a commendable tendency to urge men in smaller communities to make accurate observations and record them, so that over a period of years they may accumulate valuable data to present to the medical profession. Men are urged to collect scientific facts and present them to medical meetings so that these may be on record. There is also some thinking along the lines of postgraduate training to be under the direction of local practitioners rather than in large hospitals as is the custom today.

There is the doctor's family to consider. Throughout the years, people have felt that children have many advantages when they are raised in a smaller commuity. It is easier to keep pets. They have more room in which to move. They can be closer to nature. The schools generally are able to give a little more personal attention to youngsters, even though teachers sometimes must handle rather large numbers of pupils. The children have much more opportunity to participate in the extra-curricular activities which are offered by the school.

Finally, there is the relative position in the community to be considered. In many instances a professional man who has gone into a small community will find that from the start he is accepted by his neighbors as a leader in all community enterprises. He will find that any spare time he may have will be by various fraternal organizations, community projects, service clubs, churches and other projects undertaken by the townsmen. In other words, from the start, he will find he is a pretty big frog in a relatively small pond.

On the other side of the picture, there is no doubt that certain cultural opportunities are much more available to the city dweller. It is also true that the concentration of knowledge and the closer personal contacts with the leaders in his profession who are concentrated in the city does give a young man certain benefits. It is true that a certain percentage of the professional men who locate in the city will, after an initial waiting period, have a much larger income than the average man located in a smaller community. These few individuals probably will find that they become the leaders in their profession on either a regional or national basis. These opportunities are undoubtedly available for those who have the skill, desire and the fortune to make use of them.

In conclusion, it can be stated that there are many advantages in a small community which any professional man should consider before making a decision as to where he will locate to start his practice. These opportunities have not been adequately presented to the neophytes during the past decade or two. More communities and more individuals should attempt to educate their young people to the attractions which they can find in their old home town.—W. R. M.

WILLS FOR PHYSICIANS

Hon. William F. Waugh
Judge of the Probate Court of Cook County, Ill.

Probate Judge William F. Waugh was invited to write this article because he is recognized as one of the nation's outstanding authorities on the subject. He presides over "the world's busiest court," so characterized because it deals with a larger volume of legal business than any other court presided over by a single judge. This vast legal traffic is concerned principally with administration of estates whether or not a will has been made.—ED.

There is a widespread superstitution which deters many persons from practical consideration of the question "What will be done with my

property after my death?" The superstition seems to be that making a will is an invitation to fate to strike one down. It is difficult to believe that physicians, whose professional duties require a sensible attitude and intelligent philosophy on the ever present matter of life and death, could be among the superstitious. Whatever the reason, the evidence indicates that physicians are certainly among the many who fail to make necessary provisions for distribution of their hard-earned possessions when the inevitable occurs.

Indeed, physicians were counted "present" when a recent survey disclosed that 60 per cent of the decedents whose estates were probated in the Probate Court of Cook County in the last 20 years failed to leave wills. The result was that the estates of all these persons—money and property which they had accummulated in a lifetime of effort—descended to and were arbitrarily distributed among their heirs at law in accordance with the statutes of the state of Illinois.

In many instances that distribution was contrary to the wishes of the decedent, worked a hardship on the members of his immediate family, entailed unnecessary expense and provided windfalls for relatives who had contributed nothing toward its accumulation and who may have been wholly unknown to the decedent. The harsh and often inequitable disposition of one's assets at death may be avoided by the simple expedient of making a will.

Just as society makes the laws which provide rules of conduct in daily life, so, too, society has devised the method by which one can dispose of one's worldly goods. It is only logical that the laws—statutes in the various states—recognize that "blood is thicker than water." Frequently a person, for any number of human reasons, wishes to bestow on someone unrelated by blood a good part, a small part or all of his wealth. But the law cannot know the reasons or even the desire to do so. Only the fact of blood kinship can be considered when it is left to the law to make a distribution.

What must be clearly kept in mind, therefore, is that making any disposition of property other than by the law of descent is a privilege which must be acted on. The instrument by which this may be done, and which is recognized by the law, is the will, or "testament." The law describes how a will must be executed and requires strict compliance. Hence a will is a written instrument by which one makes a disposition of property to take effect after death, within the limits fixed by the statutes of the several states. The testator (maker of the will) may dispose of his property by will to whom he pleases, limited only by the rights given by law to a surviving husband or wife. He may disinherit any or all of his blood relatives, even his children, no matter how unjust his exclusion of his heirs may be, and he may give his property to a stranger to his blood.

Anyone who has attained his or her majority and who is of sound mind and memory may make a valid will. The will must be in writing and executed in accordance with the requirements of the state law. It may be changed from time to time by the testator through the making of a codicil or an entirely new will. A codicil is an addition, or supplement, and is usually amendatory or explanatory of the original document. It is a part of the will and must be executed with the same formality as a will. The use of the codicil often results in contradiction and confusion. Consequently, when changes are desired the execution of a new will is recommended. (Other pertinent definitions: An executor is the person who is named by the testator to execute the provisions of his will. An administrator is the person named by the court to administer a decedent's estate when there is no will.)

Making a will requires more than merely writing out intentions, if one really wants to have one's wishes carried out. Its language must be clear and unambiguous, and it must be executed in accordance with the law. In preparing and executing it one should have the assistance of a competent lawyer, and this is certainly one instance where, I believe any physician would agree, "an ounce of prevention is worth a pound of cure." Many a physician who is aware of the hazards in a layman's self diagnosis fails to recognize the analogous pitfalls in his acting as his own lawyer. In the field of law he is no longer a professional, he is a layman.

A will should be well planned, clearly written, revised from time to time to keep it up to date, and placed where it can be found when needed. I would suggest the following procedure as a well ordered course:

Prepare a memorandum containing a list of your assets, including all assets associated with your medical practice, how you desire to dispose of them and a list of your nearest relatives, together with their last known addresses (they have to be notified when your will is presented for probate even though they take nothing under it). Then see a lawyer, present the memorandum to him and tell him what you want to accomplish. He will bring to your attention the necessity of naming an executor (in Illinois, he must be a resident of the state). He will also point out the desirability of requiring a surety bond as a protection against avoidable loss, unless the surviving husband or wife or some other equally trustworthy person is to be named. In such cases it is customary to provide that he or she be authorized to act on the filing of a personal bond with surety waived. The lawyer may point out the advantages of naming a bank or trust company as executor, since the experience and judgment of their trust officers, coupled with the fact that they are impartial and will deal objectively with any situation that may arise, recommend their appointment. He will also inquire as to what provision, if any, you have made for the payment of federal estate and state inheritance taxes, which may be assessed.

At this point it is well to know that in these days of high taxes and involved tax laws the preparation of a will by an expert may result in substantial savings in taxes, leaving more of the estate to be distributed. An example of possible saving in taxes is provided by the marital deduction provision in the Revenue Act of 1948. The requirements for qualifying a bequest to a spouse as a marital deduction are technical and require the help of an expert.

When the will is drawn, provision should be made to meet payment of federal estate and state inheritance taxes. There are many tragic instances in which failure to plan necessitated sale of assets at a sacrifice for the satisfaction of tax claims. Remember, too, that your will can become out of date unless it is revised from time to time. Personal relations change, children are born and sometimes beneficiaries named in your will die before you do.

Finally, make certain that the will is kept in a place where it may be quickly brought forward when it is needed. Leaving it with the lawyer or bank or trust company is recommended, or it may be placed in a safe deposit box. In any event keep it in the place where you have your insurance policies, title papers and other valuable documents, and let someone you trust know of its existence and whereabouts.

It is apparent that the making of a will involves a careful planning of affairs and is not merely making a disposition of assets effective after death. A man and wife approaching the making of a will with proper planning gain a whole new conception of their affairs and take steps that are to their advantage during their own lifetime, such as placing the family bank account and title to the home in their joint names, in addition to providing safeguards and benefits for their prospective survivors.

When death occurs and a will has been properly made, the survivor or survivors are then obliged to have the will recognized by the law and its provisions carried out. The widow, or someone acting for her, should immediately contact the family lawyer, turn the will over to him and be guided by his advice.

Everyone should make a will. When a man dies without having made a will, the law makes one for him. The following case, I think, indicates plainly some additional advantages of making a will.

A man has an estate of $50,000. He has a wife and two minor children. His will states that he wishes all his property to go to his wife, and that he is making no provision for the children because he is fully confident that she will provide care and education for the children from the money he is leaving. He names her as executrix and stipulates that she act on her personal bond without surety. When the lawyer presents the will to the court, the administration of that estate is relatively expeditious and inexpensive.

In a similar case, but one in which the man does not leave a will, the law decides the manner of distribution. In Illinois, one-third of the estate after expenses and debts are paid goes to the widow; the remaining two-thirds go in equal parts to the children. Immediately, the law sets up a variety of safeguards. The widow is entitled to be named as administratrix, but she must provide bond with surety. This usually means a surety company bond, for which a premium is paid. Next, an estate must be

opened for the minors and a guardian appointed. The widow may be appointed guardian of her own children, but again she must provide a surety bond and pay a premium. In addition, the children's share must be deposited in the minor's estate; it cannot be used except for the care of the minors and may be withdrawn only on approval of the court. This means that every time a withdrawal is to be made and the money is to be used by the widow petitions must be filed and presented to the court, entailing the employment of an attorney and involving various court charges. It can easily be seen that failure to make a will in the circumstances set forth above involves the widow in burdensome legal duties together with extra expenses.

It is perfectly proper for a man to set up any number of controls within the limitations of the law for his children or for strangers or for anyone else he wishes to share in his estate. That is entirely his business, but he must make it his business, through execution of a will clearly setting forth his desires. It should be noted that when a person dies without leaving a will and without any heirs, the entire estate by operation of law goes to the community; in Illinois it goes to the county in which he has resided.

More than 30 per cent of all wills are drawn during the year prior to death. This means that a great many wills are drawn in haste or at time of unusual mental or physical stress or illness. These and the ones in which the makers lacked testamentary capacity, or have been subjected to undue influence, art the wills that are constantly being broken or which lay the foundation for long drawn-out and expensive legal battles. Certainly making a will should be the careful and considered act of every man and woman who respects human and economic values. It should be undertaken when a person is in good health and of sound mind, when he is motivated by the wish to implement the right of personal judgment, reflecting the love he bears for those closest to him. *J.A.M.A., Nov.* 4. 1950.

THE HEART IN HYPERTHYROIDISM

The heart in hyperthyroidism can be compared with the normal heart during fairly strenuous exertion. In response to an increased demand for oxygen by all tissues, including those of the heart itself, the heart rate is accelerated, the cardiac output is increased, the circulation time is shortened and venous return to the right side of the heart is increased.

The tachycardia of hyperthyroidism is characteristically constant and is present even during sleep. This is in marked contrast to nervous tachycardia, which varies greatly under different circumstances. Auricular fibrillation is a frequent occurrence in hyperthyroidism. . . . Systolic murmurs, especially of the pulmonic valve, are common. The systolic blood pressure tends to be elevated and the diastolic blood pressure tends to be lowered; this wide range of pulse pressure often produces the peripheral circulatory phenomenon seen in aortic regurgitation, namely, a water-hammer type of pulse with or without capillary pulsation, and pistol-shot sounds over the larger peripheral arteries. Bruits may be heard over the thyroid gland itself. Congestive heart failure of varying degree may be present. *Excerpt: Some Aspects of Thyroid Disease II. Cardiovascular Signs of Thyroid Disease, Thomas J. Dry, M.D., Rochester, Minn., Tex. S.J.M., Nov.* 1950.

CORRESPONDENCE

YOU ARE INVITED!

The Chicago Medical Society as a scientific organization has always been interested in seeing that the public is given the best possible medical care. Its Annual Clinical Conference is outstanding in its endeavor to be helpful not only to the specialist but also to the general practitioner. The 1951 Conference will be held on March 6-7-8-9 at the Palmer House, Chicago.

The Chicago Medical Society cordially invites the physicians of Illinois to attend. The registration fee is $5.00.

PROGRAM

TUESDAY, MARCH 6

8:30 a.m. "Hematology." Dr. Leon O. Jacobson, Assistant Professor of Medicine, Associate Dean, Division of Biological Science, University of Chicago, Chicago, Ill.

9:00 a.m. "Vasodilator Drugs in Peripheral Vascular Disease." Dr. Daniel C. Elkin, Whitehead Professor of Surgery, Emory University School of Medicine, Emory University, Ga.

9:30 a.m. "The Evaluation of Laboratory Tests." Dr. Seward E. Miller, Regional Director, Federal Security Agency, U.S. Public Health Service, Chicago, Ill.

11:00 a.m. "Diseases of the Prostate in Older Individuals." Dr. Robert A. Moore, Edward Mallinckrodt Professor of Pathology and Dean, Washington University School of Medicine, St. Louis, Mo.

11:30 a.m. "Head Injuries." Dr. Harold C. Voris, Professor of Neurosurgery, Stritch School of Medicine, Loyola University, Chicago, Ill.

1:30 p.m. "Immunological Considerations in Tuberculosis, with Special Reference to Vaccination." Dr. Esmond R. Long, Director, The Henry Phipps Institute, University of Pennsylvania, Philadelphia, Pa.

2:00 p.m. "Headaches, Causes and Treatment." Dr. Russell N. DeJong, Professor of Neurology, University of Michigan, Ann Arbor, Mich.

2:30 p.m. "Cancer of the Urinary Bladder, and Evaluation of Present Methods of Treatment." Dr. William W. Scott, Brady Urological Institute, The Johns Hopkins Hospital, Baltimore, Md.

4:00 p.m. "Diagnosis and Treatment of Carcinoma of the Cervix." Dr. H. Dabney Kerr, Head of the Department of Radiology, University Hospitals, and Professor of Radiology, State University of Iowa, Iowa City, Ia.

4:30 - 5:30 p.m. Clinicopathologic Conference

WEDNESDAY, MARCH 7

8:30 a.m. "Foreign Bodies and Chemical Burns of the Eye." Dr. William F. Hughes, Jr., Professor of Ophthalmology and Head of the Department, University of Illinois College of Medicine, Chicago, Ill.

9:00 a.m. "Hormones of the Anterior Hypophysis." Dr. Herbert M. Evans, Director, Institute of Experimental Biology, University of California, Berkeley, Calif.

9:30 a.m. "Simplified Obstetric and Gynecologic Care." Dr. William F. Mengert, Professor and Chairman of the Department of Obstetrics and Gynecology, Southwestern Medical School of the University of Texas, Dallas, Tex.

11:00 a.m. "Epidemiology of Poliomyelitis." Dr. Albert B. Sabin, Professor of Research Pediatrics, University of Cincinnati College of Medicine and the Children's Hospital Research Foundation, Cincinnati, Ohio.

11:30 a.m. "Operative Treatment of Hirschsprung's Disease." (A motion picture) Dr. Orvar Swenson, Surgeon-in-Chief, The Boston Floating Hospital, Associate Professor of Surgery, Tufts College Medical School, and Sr. Surgeon, New England Center Hospital, Boston, Mass.

1:30 p.m. "Diagnosis and Treatment of Meningitis." Dr. Adolph L. Sahs, Professor and Head, Department of Neurology, State University of Iowa, Iowa City, Ia.

2:00 p.m. "Postlumbar Puncture Headache, Its Prophylaxis and Treatment." Dr. Robert D. Dripps, Professor of Anesthesiology, University of Pennsylvania School of Medicine and Graduate School of Medicine, Philadelphia, Pa.

2:30 p.m. "Management of Lesions of the Colon." Dr. Robert L. Sanders, Associate Professor of Surgery, University of Tennessee, Memphis, Tenn.

4:00 p.m. "Dermatologic Problems in Children." Dr. Francis W. Lynch, Clinical Professor, Division of Dermatology, University of Minnesota, St. Paul, Minn.

4:30 p.m. - 5:30 p.m. Panel Discussion "What's New in Medicine and Surgery."

THURSDAY, MARCH 8

8:30 a.m. "Diabetes." Dr. Robert W. Keeton, Professor of Medicine and Head of the Department of Internal Medicine, University of Illinois College of Medicine, Chicago, Ill.

9:00 a.m. "Ectopic Pregnancy." Dr. Conrad G. Collins, Professor and Chairman, Department of Obstetrics & Gynecology, Tulane University School of Medicine, New Orleans, La.

9:30 a.m. "X-Ray Examination of the Colon — A Badly Neglected Procedure." Dr. Fred J. Hodges, Chairman Department of Roentgenology, University Hospital, Professor of Roentgenology, University of Michigan, Ann Arbor, Mich.

11:00 a.m. "The Use of Cortisone in Rheumatic Diseases." Dr. Emmerson Ward, Mayo Clinic, Rochester, Minn.

11:30 a.m. "Fractures of the Elbow in Children." Dr. William T. Green, Clinical Professor of Orthopedics, Harvard Medical School, Boston, Mass.

1:30 p.m. "Common Errors in the Diagnosis of Hydro-Nephrosis." Dr. Reed M. Nesbit, Head, General Urology Section, University of Michigan, Ann Arbor, Mich.

2:00 p.m. "Recent Advances in Diagnosis and Treatment of Anemia." Dr. Thomas Hale Ham, Professor of Medicine, Western Reserve University, The School of Medicine, Cleveland, Ohio.

2:30 p.m. "Involuntary Movements of the Muscles of the Body." Dr. Harry Lee Parker, Professor of Neurology, Graduate School, University of Minnesota, Rochester, Minn.

4:00 - 5:00 p.m. Panel Discussion. "Cardiology."

FRIDAY, MARCH 9

8:30 a.m. "Current Management of Difficult Labor." Dr. H. Close Hesseltine, Professor of Obstetrics and Gynecology and Secretary of the Department, University of Chicago School of Medicine, Chicago, Ill.

9:00 a.m. "Comparative Values of Vagotomy, Banthine and Gastric Resection in the Treatment of Peptic Ulcer." Dr. Keith S. Grimson, Professor of Surgery, Duke University, School of Medicine, Durham, N. C.

9:30 a.m. "Current Trends in Treatment of Esophageal Disease." Dr. Chevalier L. Jackson, Professor of Laryngology and Broncho-Esophagology, Temple University, Philadelphia, Pa.

11:00 a.m. "Virus Disease in Children." Dr. Joseph Stokes, Jr., William H. Bennett Professor, Department of Pediatrics, University of Pennsylvania School of Medicine, Philadelphia, Pa.

11:30 a.m. "The Effects of ACTH and Cortisone on Infectious Processes." Dr. Paul B. Beeson, Professor of Medicine, Chairman of the Department of Medicine, Emory University School of Medicine, Emory University, Ga.

1:30 p.m. "When is a Sprain not a Sprain?" Dr. James K. Stack, Associate Professor of Bone and Joint Surgery, Northwestern University Medical School, Chicago, Ill.

2:00 p.m. "Disseminated Lupus Erythematosus." Dr. Louis A. Brunsting, Professor Dermatology and Syphilology, Mayo Foundation Graduate School, University of Minnesota, Rochester, Minn.

2:30 p.m. "Recent Contributions to the Early Diagnosis of Gastric Carcinoma." Dr. H. M. Pollard, Associate Professor Internal Medicine, University of Michigan, Ann Arbor, Mich.

3:30 - 4:30 p.m. Panel Discussion "ACTH."

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

At a special meeting of the American Board of Obstetrics and Gynecology, held in Pittsburgh, Pennsylvania, December 14, 1950, the following changes in the regulations of the Board were unanimously adopted:

1. That physicians otherwise qualified, who were graduated before January 1, 1939 and whose required training was in obstetrics or gynecology alone, and who have confined their practice to obstetrics or gynecology for at least five (5) years immediately prior to application be accepted for examination as candidates for certification in either obstetrics or gynecology. In all other respects requirements for eligibility remain the same for those physicians graduated since 1939. Bilateral training is required as published in the Bulletin of the Board.

2. Applicants who have been certified by one of the other American Specialty Examining Boards will not be eligible for certification by this Board until they have relinquished the certificate previously conferred.

3. Since the vast majority of obstetrical and gynecological cases are non-operative the Board requires adequate training in basic sciences, infertility, endocrinology, oncology, irradiation therapy, psychosomatic medicine, electrotherapy, and other non-operative methods of diagnosis and treatment as well as training in major operative procedures.

Paul Titus, M.D.
Secretary

WOMAN'S AUXILIARY NOTES

Our Public Relations sphere this year will cover world events and must, therefore, be flexible. We must become informed as to plans of our parent organizations and be able to adjust to changing public needs.

We are advised that Civilian Defense is here to stay. According to Dr. Henrietta Herbolsheimer, who serves with Major Lenox Lohr on the State Civil Defense Committee, we, the women, will not take a secondary position in this emergency and must make comprehensive plans IMMEDIATELY as to how we, as doctors' wives, can assume the lead among women in serving our communities. All Civil Defense planning is done on a local level, the State serving as co-ordinator. Wisest action, therefore, would be to organize NOW through your local Civil Defense Chairman. Take inventory and inform him concerning the number of doctors' wives who will work in the various fields, i.e. registered nurses, dietitians, technicians, welfare workers, stenographic workers and those trained in child care. There will be work for everyone of us. Among other things, we will be called upon to assist in making surveys of existing stockpiles of essential materials in our local hospitals and drug stores. These stockpiles will include such materials as morphine, barbiturates, bandages, burn ointments, antibiotics, etc. available in event of emergency.

It is imperative that every home have at least one person trained in Home Nursing and First Aid. These courses are available through your local Red Cross Chapter, and that organization is eager to train any interested group.

In event of enemy attack all local hospitals will be expected to open branches in public buildings to increase their facilities tenfold. The main hospital will be the chief laboratory and operating room. In the branch hospitals one registered nurse will supervise a number of those trained through the Red Cross courses. So, it is obvious that a tremendous number of hands and vigilance be necessary.

Auxiliary members have been urged to organize study groups within their respective County auxiliaries which will afford every member the opportunity to learn how to protect herself in the event of atomic attack, and enable her to speak before lay groups and assure them that their health and well-being is of prime importance to us, as doctors' wives, and the people will be cared for whether in peace or war.

The following publications are recommended for the study groups: "How to Survive An Atomic Attack" by Richard Gerstell, published by Bantam Press Inc., price 25 cents, and available at most newstands—or at 25 W. 45th Street, New York, N. Y.; "Civil Defense" and "Survival Under Atomic Attack", both available through the Superintendent of Documents, U. S. Gov't. Printing Office, Washington 25, D. C. Price, 10 cents. The last publication listed should be a *must* in every American home. It would be a wise gesture to suggest that local organizations send for them in large quantities for distribution to members. The following excerpt is especially important:

"SIX SURVIVAL SECRETS FOR ATOMIC ATTACK"

1. TRY TO GET SHIELDED
2. DROP FLAT ON THE GROUND OR FLOOR
3. BURY YOUR FACE IN YOUR ARMS
4. DON'T RUSH OUTSIDE RIGHT AFTER BOMBING
5. DON'T TAKE CHANCES WITH FOOD OR WATER IN OPEN CONTAINERS
6. DON'T START RUMORS

Briefly, then, let us plan for the worst and hope for best, and prove by performance that we, along with our doctor husbands, are worthy of the vote of confidence placed in them and their profession as evidenced on November 7, 1950.

WESTERN INSTITUTE ON EPILEPSY

The Third Western Institute on Epilepsy will be held in Salt Lake City, Utah, the weekend of June 15 to 17, 1951. This meeting will be of wide interest to physicians, social workers, public health nurses, employers, teachers, rehabilitation workers, state hospital personnel, educational leaders, etc. A small registration fee will be required.

Further information may be obtained by writing to Dr. Harriot Hunter, University of Colorado Medical Center, 4200 East 9th Avenue, Denver, Colorado, or Dr. Jean P. Davis, University of Utah, College of Medicine, Salt Lake City, Utah.

"YOUR MENTAL HOSPITALS" SECURITY HOSPITAL

Sixty years ago, the first male patient was admitted to the Illinois Asylum for the Insane. This institution was built in the southwestern section of Illinois at Chester, on a high bluff overlooking the Mississippi River. Although it is adjacent to the Menard Division of the State Penitentiary, there is no direct relationship between the two institutions. They are operated by separate departments of the State.

A Board of Prison Commissioners operated the institution until 1917 when control passed to the Department of Public Welfare. The institution was renamed the Chester State Hospital and later named the Illinois Security Hospital.

In general, the purpose of the institution is to provide for the care and treatment of male persons adjudged by the courts to be either mentally defective or psychotic at the time of their trial, following the commission of some criminal act. In addition, mentally ill and mentally defective patients are transferred from other State hospitals because of their inability to adjust at these facilities. They are usually patients of a violent, aggressive nature or patients who, by reason of their many escapes, cannot be retained except under conditions of maximum security.

The hospital also receives patients who are neither mentally defective nor psychotic but who are found to be suffering from a mental disorder known as sexual psychopathy. These patients are committed by specific statutes providing for the hospitalization of those persons showing propensities for the commitment of sex crimes.

The following is a grouping of the patients now in the Illinois Security Hospital:

Classification of Patients	*Number*
Mentally Ill	275
Mentally Defective	88
Criminal Sexual Psychopath	16
TOTAL	379

Of this number, approximately 43 per cent were court mittimus cases.

The therapies available for treatment include electric shock, group, occupational, industrial, psycho-, and the hydro-therapies. The clinical team includes the following full-time personnel: psychiatrist, psychologist, psychiatric social worker, nurse, and recreational director. The Occupational Therapy Department employs trained occupational therapists. Approximately 55 per cent of the patients have some regular assignment in either the occupational or industrial therapy programs. The remaining patients who cannot participate in these activities are included in the recreational therapy program.

Frequent examination and mental testing is made of each patient. In addition to these examinations, the Chief Medical Officer of the Department of Public Welfare provides the consultant services of three psychiatrists from the Illinois Neuropsychiatric Institute. These psychiatrists visit the institution once every three months and review cases and make recommendations concerning the disposition of each.

Provisions for the care and treatment of the patients are very similar to those existing at the other State hospitals under the supervision of the Department of Public Welfare. This institution varies inasmuch as there are no provisions for conditional discharge. The physical plant is constructed with the idea of maximum security. There are no open cottages, and all wards are locked wards. Although the rehabilitation of the patient is the primary concern of the hospital, the operation of a secure institution goes hand-in-hand with this objective.

George A. Wiltrakis, M.D.
Deputy Director

AEC OFFERS FOUR FELLOWSHIPS IN INDUSTRIAL MEDICINE

The U. S. Atomic Energy Commission will offer four fellowships in industrial medicine for the 1951-52 academic year, continuing a special fellowship program begun last September. The program is administered for the AEC by the Atomic Energy Project of the School of Medicine and Dentistry, University of Rochester, Rochester, N. Y., and fellows are selected by a committee headed by Dr. James H. Sterner, Associate Medical Director of the Eastman Kodak Co., and Consultant in Industrial Health to the AEC.

The purpose of the special fellowship program is to provide advanced training and on-the-job experience to men and women medical doctors in the field of industrial medicine, particularly in relation to the atomic energy industry.

Awards are for one year's academic training

at approved institutions of the fellows' own choosing. After completion of this training, fellows will be eligible to apply for a second year's in-plant training at one of the major installations of the AEC. The stipend for the first year's training will be $3600, plus tuition and laboratory fees, and for the second, or in-plant, year, $5000.

The purpose of the special fellowship program U. S. who hold an M.D. degree from an approved medical school and who have had at least one year of internship. All fellows must be investigated by the FBI and cleared by the AEC for access to restricted data before entering on their fellowships.

Applications for the 1951-52 fellowships should be submitted by March 1, 1951 to A.E.C. Fellowships in Industrial Medicine, Atomic Energy Project, School of Medicine and Dentistry, University of Rochester, Rochester, New York.

CLINICS FOR CRIPPLED CHILDREN FOR MARCH

Doctor Herbert R. Kobes, director of the University of Illinois Division of Services for Crippled Children has released the March schedule of clinics for physically handicapped children. The Division will conduct 17 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

During 1950 children made 9,497 visits to general clinics, 654 to rheumatic fever clinics and 278 to cerebral palsy clinics. Attendance at rheumatic fever and cerebral palsy clinics is limited to invitations only.

Local medical and health organizations, both public and private, cooperate with the Division in providing this clinic service to Ilinois' thousands of physically handicapped children. The examining clinicians are selected from private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic those children for whom he may want examinations or may want to receive consultative services.

The March clinics are:

March 6—Centralia, Franklin School
March 7—Joliet, Will Co. TB Sanitarium
March 8—Sterling, Sterling Public Hospital
March 8—Springfield, St. John's Hospital
March 8—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
March 8—Watseka, American Legion Home
March 9—Chicago Heights (Rheumatic Fever), St. James Hospital
March 13—Peoria, St. Francis Hospital
March 13—E. St. Louis, St. Mary's Hospital
March 14—Hinsdale, Hinsdale Sanitarium
March 14—Alton, Alton Memorial Hospital
March 15—Rockford, St. Anthony's Hospital
March 15—Jacksonville, Passavant Hospital
March 21—Evergreen Park, Little Company of Mary
March 21—Metropolis, American Legion Home
March 22—Anna, American Legion Home
March 22—Bloomington, St. Joseph's Hospital
March 23—Chicago Heights (Rheumatic Fever), St. James Hospital
March 27—Peoria, St. Francis Hospital
March 27—Effingham (Rheumatic Fever), Douglas Township Bldg.
March 27—E. St. Louis, Christian Welfare
March 28—Springfield (Cerebral Palsy), Memorial Hospital

In carrying on its program, the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse associations, local and welfare agencies, local chapters of the National Foundation for Infantile Paralysis and other interested groups.

The Division of Services for Crippled Children is the official state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization, and after-care for children who are crippled or who are suffering from conditions which may lead to crippling.

ORIGINAL ARTICLES

The Need of Medical Service in Small Industry

J. H. Chivers, M.D.
Chicago

The industrial worker of America is demanding adequate medical care on a sound economic basis. If the medical profession of this country will provide this service, it can well be the saving grace against socialized medicine. That statement is neither startling nor original.

At no time in the past has the great mass of our population become so conscious of health, disability and the prevention of illness as they are today. This personal concern for health conservation and well being began after the first World War when we were confronted with large groups of returned men in need of rehabilitation from war casualty and disease. The second World War reiterated and emphasized the need for public concern of the large number of disabled and handicapped and gave impetus to a movement which developed into drives, associations and endowed funds for the study and treatment of disabling disease. A sympathetic public regard awakened for those unfortunate ones crippled with polio, heart disease and other afflictions considered as irremedial. This was followed by planned campaigns, almost crusades, for the specialized treatment, prevention and study of all types of disability, including polio, heart disease, epilepsy, diabetes, neuroses, as well as the care of amputees, the blind, the deaf, the arthritic and the aged.

All this has been effectively implemented by statistical reports from government bureaus, compensation boards, insurance files and public health agencies. Newspapers, radio, periodicals, pharmaceutical advertising and parent-teacher programs have all joined in the popular, and to some, the lucrative business of "Better health and prevention of disease." Good health has become a goal to be attained and retained. It takes not only education, proper diet, adequate housing, medicine and habits of life — it takes economic means to reach this goal, or at least to find out when one has reached it.

Presented before the General Assembly, 110th Annual Meeting, Illinois State Medical Society, Springfield, May 24, 1950.

The wage earner has become health conscious not only in relation to illness and accident caused by his job, but to any sickness which interferes with his work or his daily earnings. This cost of health maintenance has become an increasingly important factor in the economic life of the average worker. We as doctors are aware of the fact that the capital investment in medical education and practice has increased threefold in the past decade, and there are sound business reasons to justify an increase in fees for professional services rendered. But sometimes we do not realize that the cost of medical care is frequently beyond the economic means of many hourly paid employees. We forget that the man who punches the time clock frequently pays twice for his lost time illness, once for his hospital and doctor's bill and again in lost wages. In any prolonged absence under medical care this cost is a real hardship. The provisions for financial help through insurance protection have afforded some relief, but these benefits are limited, and unfortunately the money provided through insurance has not always been regarded by the doctor as a means of lessening the financial obligation of the disabled worker for his medical fee. Too often the fees increase proportionately.

The Council on Industrial Health of the American Medical Association has endorsed the following responsibilities within the scope of Industrial Medical service:

1. Adequate medical care of workers, disabled by reason of accident or illness caused from work.
2. Proper control over industrial environment for the prevention of disease or injury in industry.
3. The education of employees on problems of health by consultation, advice and guidance.

Most of the large employers with an established medical department are providing this pattern of ethical medical service to workers on all matters pertaining to their health, their sickness and their well-being. Medical service in industry is much more than the rendering of care for accidents and illness arising from work. The physician in industry who has an understanding of the social and economic problems of the worker can exercise a far reaching influence in counselling and advising on matters of sickness and health affecting the worker and his dependents. The physician in industry knows how frequently the worker gropes from doctor to doctor and clinic to clinic trying to find the answer to his wife's illness or his child's complaint. The man needs sound objective guidance — not neighborly recommendations.

In addition to certain direct medical responsibilities, the practice of industrial medicine is fundamentally a cooperative planning on the part of management, labor and the medical profession. Large industry has set the pattern because of a more favorable economic position to adopt changes in the employee relations program. During the past year representatives of management and labor have given considerable attention to what are called welfare benefits for workers. This means pensions, hospitalization and medical insurance, sick leave, etc. I can assure you that organized labor is serious in this matter. The wage earner is demanding adequate and timely medical care and he expects this professional service to be rendered within his pay check purchasing power. If, in the proper treatment of his illness, it is necessary to have blood transfusion, antibiotics or special nursing service, it shall not be withheld until he can raise the cash to pay for it.

The inauguration of group insurance for hospital and medical benefits was an employer's device to meet the needs of his workers. It was intended to provide financial assistance for a personal responsibility and yet maintain a free choice of doctor. At the beginning the medical profession was rather lukewarm to the idea — management is not medically trained and only to a small degree medically minded, but experience in the large industry has shown that where management concerns itself about the medical problems of the workers, there is a favorable result on production costs, absentee loss and employee relations. As I mentioned before, the employers in large industrial plants have adopted a medical program for their workers. In the small companies of 400 workers or less this need is not yet met, but the demand is definitely present.

A recent tabulation of wage earners in Illinois indicates that approximately 65 per cent of the million and a quarter workers are employed in manufacturing plants of 800 employees or less. Governor Stevenson in a talk on May 1st open-

ing the Governor's Conference on Industrial Safety said "Seventy per cent of industry in Illinois has no satisfactory program or safety procedure for the protection of workers. I daresay more than 70 per cent of industries have no medical program." It should be clear that by such a statement Governor Stevenson is calling the attention of management and the medical profession to the need of a welfare program for our industrial workers.

Let me quote a statement adopted by the Medical Society of the County of New York in May 1948 "This Medical Society as an impartial professional group has a public responsibility to industry and to labor to demonstrate the value and benefit of a health program for small industries and to serve as a catalyzing agent in bringing all interested agencies together in realizing a community program for better industrial health."

From a business point of view the owner of a small industrial establishment cannot afford to maintain an individual medical department. He purchases insurance for his compensation liability and refers to the insurance doctors such accident and illness as are attributable to work. However, during the last year, as a result of labor negotiations, there has been a tendency for the management of small plants to provide the workers with hospital, surgical and medical benefits. These benefits are paid for entirely by the employer in lieu of pension plans. This in itself is not an adequate medical program.

For this reason group medical service is found to be advantageous. A number of small industries band together and through cooperation of the local medical society obtain the necessary medical personnel to carry out an adequate and well integrated medical program. The pattern and scope of medical service in these clinics follow closely the type of care rendered by the medical department of the large employers. In Hartford, Connecticut, Cincinnati, Minneapolis, Burbank and quite recently in Denver, industrial clinics have been operating with astounding satisfaction to the workers, to management and to the participating physicians. Let me briefly describe the pattern of one such clinic which serves about twenty-five small industries with a combined payroll of 12,000 workers. The clinic is headed by a competent physician who has a genuine interest in applying the principles of preventive medicine, surgery and hygiene. In addition, there is a staff of three specialists and adequate nursing, laboratory, x-ray and clerical personnel. The services rendered to workers of each company vary slightly, but consist of:

1. Care of all accidents and illness arising from work.
2. Preplacement examination and periodic examinations of certain classified workers.
3. Scheduled visits to each plant and consultation with management on matters pertaining to industrial hygiene, sanitation, safety and communicable disease, rehabilitation, etc. At the same time the doctor is learning first hand about job environments and job requirements, as well as employment hazards.
4. Control of absenteeism on account of illness. Three day absence is reported to the clinic and the worker clears through the clinic before returning to work. Various surveys among industries in the United States show that absence due to illness averages six to eight days per year for each employee. However, where medical service is provided and available, the average lost time per employee is two to three days.
5. Medical opinion regarding job changes, physical fitness for work, retirement, leave of absence, etc.
6. Advice and consultation to workers on personal medical matters.
7. Maintenance of medical records as confidential files.

It is not difficult to evalute the cost for such service on a per capita basis. Naturally, there will be variations in relation to the number of employees and the type of service rendered. Where there is an insurance carrier for the compensation liability, the fee for this service is negotiated with the insurance company. Nursing service in the plant is on an hourly basis, or in some instances the nurse is a paid employee of the plant. This type of service is entirely separate from any medical and hospital benefits provided by the employers in their group insurance coverage. The industrial clinic should not become a type of subsidized general practice. Group medical and hospital insurance allows free choice of doctor and hospital and that principle needs continual emphasis.

One difficulty in establishing this field of medical care has been the reluctance of members of the medical society to solicit their professional services. There is always the question of ethics. This gap between need and service is recognized by the Council on Industrial Health of the American Medical Association. There is now in preparation a suggested program to be sent to the various state societies as a guide in developing local industrial health programs. The purpose of this movement is to expand the practice of occupational medicine and surgery so as to meet the needs of workers in the small industries. This should be a cooperative endeavor by management, labor and the local medical profession. Every practitioner of medicine in an industrial area should be vitally concerned in this program.

We do not want the medical service of industry to become a subsidized general practice and yet some of the plans are turning in that direction. We do not want management and labor to believe that the insurance benefit provided by industry to secure free choice of doctor and to help meet the medical costs to workers is not serving that purpose, but is being diverted to the benefit of the doctor and the hospital — and yet there are an increasing number of case reports to support that conclusion. We do not want to ignore the fact that the Governor of Illinois has publicly stated that "almost seventy per cent of the workers in Illinois do not have adequate medical care in their place of employment." If we ignore these facts we are not "digging the grave for the ghost of socialized medicine."

Public Health From 1900 to 1950

Henrietta Herbolsheimer, M.D., M.P.H.
Springfield

At the turn of the century the United States was emerging from the period of the great epidemics. These mass phenomena of disease accompanied the extensive shifts in population incident to settlement of the West, large-scale immigration from abroad and the rural-urban shift incident to the Industrial Revolution. Cholera, smallpox, typhoid, virulent scarlet fever, and diphtheria had beseiged every area of the land and yellow fever and malaria had attacked the southern regions. Each took a heavy toll of lives and left in its wake a population mindful of the fact that something more than heroic individual initiative during an outbreak was necessary to control these visitations.

Fortunately, the turn of the century found western civilization in a period of rapid growth of knowledge important to health. By 1900, a few of the elements about the causative organisms of several diseases had yielded to the growing science of bacteriology; during the next 50 years an incredible abundance of facts and principles were to accumulate on both health and disease. Myriads of disease-producing organisms were identified and careful investigation revealed much about their behavior where man, plants, and animals are concerned. The Wasserman test for syphilis and the Schick test for diphtheria were developed; such curative and preventive biologics as diphtheria anti-toxin, anti-luetic drugs, vaccines for typhoid, dysentery, diphtheria, whooping cough, tetanus, cholera, and yellow fever became available; practical methods for the purification of water and the sanitary disposal of sewage were developed; and pasteurization was introduced as a means of making milk safe. From the laboratories and field research studies there came a wealth of knowledge about nutrition; the vitamins which controlled pellagra, beriberi, scurvy, and rickets were discovered. The relationship of iodine to

Medical Administrative Assistant to Director, Illinois **Department of Public Health. Roland R. Cross, M.D., *Director.***

goitre and cretinism was established. In the latter half of this period insulin for treatment of diabetes and liver for pernicious anaemia were developed and other endocrine substances were isolated, purified and chemically manufactured for amelioration of other diseases due to disturbed function of the glands of internal secretion.

The half-century span which had known the two most devastating wars in the history of man was also to experience the discovery of new and wonderful antibiotic drugs—sulfonamides, penicillin, streptomycin, chloromycetin and aureomycin — and strange new complex chemicals like D.D.T., Bal, atabrine, the arsenicals, cortisone, and radioactive elements, all of which are of enormous value in pin-pointing the attack on forces inimical to the health of man. Great technical advances in diagnostic procedures and improvement in surgical skills were also characteristic of this period. The X-rays — discovered as a curious laboratory phenomenon by Roentgen in 1895 — were put to widespread use in both diagnosis and treatment. Out of the war experience, directly or indirectly, came great advances in the successful utilization of blood transfusions and blood derivatives as well as the impetus to develop skills in physical medicine and rehabilitation.

During this period of evolution of facts, certain concepts basic to their application were defined and acted upon. In the belief that good doctors are essential to public health the states enacted laws governing the qualifications of those who sought to practice the healing arts. Another prevailing idea was that over and above the availability of good doctors there is need for organized community effort to stimulate the use of medical service along preventive lines and to promote environmental sanitation and the kind of behavior and practices which will result in healthful living. To this end, states created Departments of Public Health and through successive legislation the powers and duties incumbent upon these Departments have evolved according to local circumstances and popular demand. Originally these powers were limited to collection of information about births and deaths, sanitary control of water supplies and sewage disposal and control of communicable diseases through investigation of epidemics. In consequence of popular education in matters of health and disease and as part of the general trend of looking to government for increased protection, the powers and duties of the various health departments had expanded to include sanitation of food handling; licensure of drugs and cosmetics; provision of clinics for control of venereal disease, cancer detection and diagnosis, mental health; licensure of hospitals and nursing homes; subsidization and supervision of sanitarium care of tuberculosis patients; subsidization and supervision of local health activities; and provision of preventive and curative medical care for the indigent and medically indigent.

Although in matters of health the powers of the state originally were soverign, the larger municipalities, with authority to do so, had organized departments of public health with staffs competent to handle the usual types of problems. The rural areas, however, with their health problems and their populations less well assembled had no community health service other than that provided by the ex-officio Board of Health comprised of the elected officials of townships, roads-districts, or counties.

It soon became apparent that this was not enough. The large cities with health departments, had been able to effect miraculous reductions in deaths due to communicable diseases, but the rural areas, once far more salubrious than the crowded places, still experienced outbreaks of preventable disease. On the heels of several rural health disasters from preventable causes, health departments on a county basis were established. The first full-time county health department with a staff of professional workers came into being about 1908. Slowly the movement for health services on a local county basis spread throughout the country. By 1950, 60% of the more than 3,000 counties embracing 70% of the people had availed themselves of the mechanism to provide for community action in problems of health. Although this fairly extensive coverage has been attained, few of the areas have the trained personnel and the funds necessary to carry out an adequate public health program.

In addition to licensure standards for various categories of health-service personnel and the creation of official health organizations at state, local, national, and international levels, other

basic principles of public health administration emerged and were incorporated into operative patterns. Chief among these ideas are (1) close and active cooperation of health authorities at all levels of government; (2) grants-in-aid tailored to particular needs; (3) establishment of voluntary health agencies to meet pressing problems and the enlistment of their cooperation in the web of community health service; (4) critical analysis of existing resources for meeting health needs; (5) application of the statistical method in the reporting and analysis of data on births, deaths, and illnesses; (6) continuing education of the professions and the public; (7) spread of the cost of catastrophic illness in accordance with the principles of insurance; and (8) utilization to the maximum of all available knowledge and procedures in the prevention of diseases and the improvement of health.

What were the leading health problems at the turn of the century and what change has been effected during these 50 years of bountiful increases in technical and general knowledge? It should be explained that for want of a better measure, the number of deaths attributable to a specific cause has over the years served as an index to prevailing health conditions. The ten leading causes of death, then and now, and the death rates per 100,000 population are given below:

1900		1946	
1. Tuberculosis	195	Heart	307
2. Pneumonia	176	Cancer	130
3. Diarrhea and enteritis	140	Accidents and violence	88
4. Heart	137	Cerebral Hemorrhage	78
5. Nephritis	89	Nephritis	58
6. Accidents and violence	88	Pneumonia	38
7. Cerebral Hemorrhage	77	Tuberculosis	36
8. Cancer	64	Premature Birth	29
9. Bronchitis	45	Diabetes	25
10. Diphtheria	40	Arteriosclerosis	17

Fifty years ago tuberculosis was the No. 1 killer. Today it has been reduced to 7th place and the means are at hand and the public is so moved to reduce it further in the next few years. The age group attacked by tuberculosis, too, has changed in the half century. In 1900, the young adult was the leading victim; today it is the older individual — the person who belonged to the population cohort which was severely affected when he was a young adult. The success achieved may be attributed to the combination of several factors; eradication of tuberculosis in cattle, pasteurization of milk, tuberculosis testing, sanitarium care, mass X-ray surveys, health education, and general rise in the standard of living.

Through other means, largely the availability of type-specific serum and the "miracle drugs" the same nature of reduction has taken place with pneumonia. Here, too, the largest decrease has occurred in the younger age groups with pneumonia still ranking high as a leading cause of death among the elderly.

Diarrhea and enteritis was a leading cause of death in 1900 but by 1950 it no longer appears in the list of the 10 most important. A large part of the problem at the earlier period was attributable to infectious diarrhea of infants. More widespread understanding of the principles of infant care, the use of pasteurized milk, better refrigeration and improvement in the general standard of living have resulted in the saving of many infant lives. Fifty years of progress have reduced the infant mortality rate from about 120 to 30 per 1,000 live births. Since most of this gain has occurred through control of infectious diseases, the reduction in losses among infants has been largely confined to the last eleven months of the first year of life with the result that deaths due to premature birth, congenital anomalies and birth injury have assumed new weight of importance.

Communicable diseases, particularly those of childhood — diphtheria, measles, pneumonia, scarlet fever, and whooping cough — were a serious threat to life and health fifty years ago. Then, when a child was attacked with one of these diseases, or even if he were only exposed, there was little of a specific nature that could be done to help him in his battle against the invading organisms. One of the list of the common communicable diseases — diphtheria — alone ranked among the ten most important causes of death half a century ago. In one state, Illinois, a thousand deaths were attributable to this single cause in 1900. Fifty years later, however, thanks to the development and widespread use of appropriate immunizing agents and antitoxic sera and the institution of isola-

tion procedures, only a few deaths are reported per year in the entire country. Scarlet fever, too, took a heavy toll, with, for example, 643 deaths reported in Illinois in 1900. None were reported in 1948 and only two in 1949. At the turn of the century there were 40,000 cases of smallpox per year in the United States; today, there are but 300-400 per year. Even this number could be prevented by vaccination. In Illinois there were no reported cases of smallpox during the two years 1948 and 1949.

Safe water and milk supplies, sanitary food handling and control of carriers has virtually eliminated typhoid fever from the metropolitan areas and has reduced this and other enteric diseases to a position of uncommon occurrence. Typhoid fever, which plagued armies for generations and which in so late a period as the Spanish-American War (1898) took far more American lives than did actual combat, was by virtue of the military programs in public health almost unheard of among American troops in World Wars I and II.

Through prevention and control of the various communicable diseases which affected primarily the young in the population, through the decrease in the birth rate and the curtailment of immigration we find that the last 50 years have produced a meaningful change in population structure in the United States.

1900 Per Cent of Population	Age Group	1950 Per Cent of Population
4.1	65 and over	7.7
13.7	45-64	21.1
37.8	20-44	38.2
32.3	5-19	24.7
12.1	Under 5	8.3
100.		100.

It is now apparent that people who are spared premature death from communicable disease survive to be afflicted with the degenerative conditions of older age. As can be seen in the table of causes of death here presented, heart disease, cancer, cerebral hemorrhage and nephritis are now the leading killers. These are conditions of highest incidence in the later years of life. Also, deaths among the aged make up a large portion of the total toll from accidents, pneumonia and tuberculosis. Diabetes is most common among middle-aged and older persons as is arteriosclerosis. In summary, then, all of the ten now leading causes of death except one — premature birth — are to a large extent a reflection of the population structure and are indicative of a new set of demands on preventive medicine and public health.

Under present conditions, it is expected that the shift to older groups in the population will continue — and at a rapid rate. Life expectancy has been increased from about 47 years to more than 68 years in this period of sanitation and communicable disease control. For those at 65 Dublin estimates that there is an expectancy of yet 12 years for males and 14 for females. For the health service personnel who have achieved the addition of years to life there now emerges the challenge to add life to the years.

While the age-old enemies of public health have to a large extent given way over this fifty-year period to a new set of phenomena, the old scourges are by no means completely annihilated. The causative organisms of all of the severe communicable diseases which harassed the people of 50 years ago are still with us today — and many new ones besides. The end result of 50 years of brilliant scientific achievement is, therefore, not complete victory but, rather, a balance of power. Through environmental sanitation techniques and personal hygiene, immunizations, new drugs, and health education, there has been established an ecological equilibrium favorable to man. This, unfortunately, is not a static equilibrium, but it is dynamic in the sense that any alteration in the host and parasite relationship may affect the present state of control. These alterations are going on all the time. From detailed analysis, it is possible to conclude that more extensive and intensive application of the principles of preventive medicine and public health, can bring about further tipping of the scales in favor of the man; it is also obvious, and all too frequently illustrated, that when the controls break down through incompetence or carelessness, disaster from acute communicable disease can and does result.

One might, on review of the remarkable accomplishments over the past half-century, conclude that there is just cause for satisfaction and complacency; this would be so were it not for the nature and the dimensions of the public health problems which have now emerged. Despite the fact that there are now more people

of advanced years in our population, the general (crude) death rate is only about half of what it was in 1900, and it has almost reached the irreducible minimum. Therefore, at the half-century mark, the actual tally of deaths has been altered in its meaningfulness as a measure of the nature and extent of public health. Although the age-specific and disease-specific death rates are still valuable pieces of objective evidence they no longer serve to reach to the heart of the matter — the question of the kind and extent of disabling illness. From the National Health Survey made in 1935, the extensive studies of the Committee on the Cost of Medical Care made in 1928-1932, and numerous subsequent studies it has become apparent that disabling illness is profoundly important not only to the happiness of the people but also the economics and welfare of the nation. Dublin estimated that in 1947 there were nearly 25 million Americans physically or mentally impaired and almost totally unproductive; 700,000 civilians with tuberculosis; 4 million people with heart impairment; 230,000 blind; at least 1.5 million mentally afflicted and more than 2.5 million crippled. These conditions are long-term or chronic illnesses which, in addition to taxing to the extreme the available medical knowledge, are enmeshed in an almost endless chain of socio-economic problems.

While in terms of numbers, gaps in knowledge, and the cost of services, the health situation at the mid-point of the century poses obstacles which are formidable, they are probably no less so than those conditions which confronted public health at the turn of the century. Perhaps, in another block of fifty years, with comparable application of resources and ingenuity, the same measure of gains may result.

Newer Drugs in the Therapy of Epilepsy

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Epilepsy may frequently be so refractory to therapy that any new drugs which offer hope of benefit are welcome additions to the therapeutic armamentarium of the physician. Of the many drugs now employed, there is none which is effective in all types of epileptic seizures or, for that matter, in a given type of seizure with any degree of consistency. It is therefore often necessary to experiment clinically with various drugs and in various combinations.

Since some forms of epileptic seizures are more amenable to specific drugs, it might be well first to classify the types of epilepsy. There are many classifications, but we have found the following general classification to be clinically useful:

I. Idiopathic, in which the most frequent type of attack is
   A. Grand mal
   B. Petit mal (more common in children)
   C. Psychomotor (more common in adults)
   D. Other equivalents, e.g. abdominal epilepsy, migraine, etc.
II. Symptomatic or organic, in which the most frequent type of attack is
   A. Jacksonian or focal
   B. Akinetic
   C. Myoclonic
   D. Any of the forms seen in idiopathic

It should be emphasized, at the outset, that the therapy of epilepsy includes more than drug therapy. Control of other factors is important. In a person with a convulsive diathesis, trigger mechanisms may exist: e.g., emotional disturbances; fevers; gastro-intestinal upsets; excessive intake of fluids, especially alcohol; constipation; frustrations; emotional tensions; and allergic episodes. Occasionally, the number of seizures increases during some period of the menstrual cycle. Even boredom due to lack of occupation

or recreation may increase the tendency to seizures. General hygiene and psychiatric care may in many cases be more important than drug therapy in controlling these spells. Even surgical measures may be resorted to in therapy, but only when medical management has failed and the spells are of a focal nature.

The modern therapy for epilepsy with drugs began in 1853 when bromides were first used. In 1912, phenobarbital was introduced, and dilantin sodium appeared on the scene in 1937. By 1944, two new drugs, tridione and mesantoin, were being investigated and since then other drugs, such as thiantoin, acid hydantoin, phenurone, gemonil and several others have been used. Chemically, many of the drugs are derivatives of urea. By an interchange of methyl, ethyl and phenyl radicals, the specific effectiveness, as well as the toxicity of the drug, may be modified. The dosages of the various drugs to be discussed are given for brevity in the appended table.

In the drug therapy of epilepsy, a beginning should be made with a single drug, gradually increasing the dose until control or maximun effect is achieved, or until a point is reached beyond which toxic symptoms may develop. If partial improvement but not complete control is achieved, then that improvement is retained by continuing with the same drug and adding another. Some patients respond best to one drug, some to another, and some to a combination of drugs. Whenever a drug is to be discontinued, it should be withdrawn slowly to prevent precipitation of a status epilepticus. Some drugs may control one type of seizure but aggravate or precipitate another type. The general statement should be made about all anti-convulsant drugs that the anti-epileptic effect should precede the toxic one, and that any drug which produces its toxic effect (and this includes drowsiness) before it produces the therapeutic effect is not ideal.

Frequency of dosage is usually three times a day. Occasionally it is necessary to give only two doses, but with certain drugs that are rapidly eliminated, four to five daily doses may be necessary. Where all spells are nocturnal, it may be permissible to give only a single dose at night before retiring. For special occasions of stress or excitement, as before birthdays, holidays, or menstrual periods, it may be necessary to increase dosages temporarily.

The objective of drug therapy is to achieve a clinical rather than electroencephalographic cure. None of the drugs (except tridione, and possibly also some newer ones) affect the electroencephalogram proportionate to the clinical change. It is possible to have a complete clinical remission in the presence of a continuing electroencephalographic dysrhythmia. Tridione, however, is one drug which has a tendency to normalize the electroencephalogram.

Many of the effective new drugs now commercially available have toxic potentialities. No patient should be allowed to continue on these drugs without close medical supervision. It is advisable for the physician to read carefully the literature and instructions supplied by the manufacturers regarding possible toxic effects and to guide themselves by these warnings. Unfortunately, not all manufacturers stress sufficiently these dangers, but it is hoped that reports of toxic effects will tend to remedy this situation.

As stated previously, some drugs have greater specificity for certain types of spells than others. In grand mal, the drugs of choice are phenobarbital (phenyl-ethyl-barbituric acid) and sodium dilantin (sodium di-phenyl hydantoinate) for initiating therapy. Both of these drugs have a greater anti-convulsant effect than the other barbiturates or the bromides. Dilantin, although having a strong anti-convulsant effect, frequently precipitates or increases petit mal attacks, a form of seizure much more frequent in children than adults. Phenobarbital, on the other hand, has no such tendency to increase petit mal attacks, but does occasionally aggravate psychomotor attacks, a form of seizure rare in children and more frequent in adults. Thus, in children with grand mal seizures, phenobarbital would be the initial drug of choice, while in adults with the same seizures, dilantin would be preferable. By the same token, a patient having both grand and petit mal spells would be expected to respond better to phenobarbital, whereas if grand mal and psychomotor seizures coexisted, dilantin would be the drug of choice.

Of the common barbiturates, phenobarbital is unique in that its anti-epileptic effect is all out of proportion to its soporific action. It should be borne in mind that children can tolerate rel-

atively larger dosages of this drug per pound of body weight than can adults. In the event that the epilepsy is controlled by phenobarbital, no other medication is necessary. If control is only partial, however, dilantin or some other drug may be added. If phenobarbital has no beneficial effect, another drug should be substituted.

The most common side effect of phenobarbital therapy is drowsiness, which can be combatted by the use of benzedrine or dexedrine, in the event it is found desirable to continue the drug. Rashes are rare in children and more common in adults. The great advantage of phenobarbital lies in its relatively innocuous character.

Sodium dilan'in is available in ½ gr. and 1½ gr. capsules. The toxic effects include vertigo, dizziness, diplopia, ataxia, hyperplasia of the gums, skin rashes, and occasionally hirsutism. Since sodium dilantin is strongly alkaline, it may sometimes cause gasro-intestinal upsets which may be alleviated by adding a little orange juice or mixing the drug with food. Acid hydantoin (tri-ethyl-phenyl-hydantoin) is similar to sodium dilantin except that it is acid in reaction and hence does not cause the same gastro-intestinal irritation.

Mesantoin (methyl-phenyl-ethyl hydantoin) is one of the newer drugs related to dilantin, but frequently more effective. It causes much less gingivitis, diplopia and ataxia, but is more likely to cause rashes, including exfoliative dermatitis, agranulocytosis, and occasionally hepatitis. However, it is fairly safe to use in children. One of the non-publicized dangers in the use of mesantoin is its synergistic toxic action when administered together with tridone or paradione. The toxicity of both of these classes of drugs is much more enhanced when they are given together than when they are given separately. Mesantoin, therefore, should never be given in combination with the two latter drugs. Unlike dilantin, this drug does not have the tendency to precipitate petit mal spells. In some instances, it actually controls them. It is, therefore, effective in cases with both grand mal and petit mal. Mesantoin is available in scored tablets of 1½ gr. Some patients respond best to phenobarbital, some to dilantin, some to mesantoin, some to a combination of two or three of them.

Bromides are not as valuable as any of the previously mentioned drugs in controlling grand mal spells. Occasionally, however, they will inhibit spells not affected by any other drugs. The bromides in the form of the sodium salt or as a mixture of equal parts of sodium, potassium, and ammonium bromides, should be given in prescribed dosages until a blood bromide level not above 100 mg. per 100 cc. is reached. Levels above this may be toxic. The side effects of bromides are drowsiness and confusion. Acneiform bromoderm is frequently seen, which is a troublesome symptom, especially in adolescent girls. If a bromide rash appears, the drug should be discontinued and sodium chloride intake increased.

The most effective drugs in grand mal are those previously mentioned. There are, however, several other hydantoin analogs which have some anti-convulsant activity, but none of them to a degree comparable to those already discussed.

Of these, thiantoin (sodium-phenylthienyl hydantoin) is most beneficial. It has practically all of the side effects of dilantin except for the gastro-intestinal but is not clinically as efficacious. It does not tend to precipitate petit spells as does dilantin; it is, however, occasionally found to be useful when all others fail. It is available in 2 gr. and 4 gr. capsules.

Petit mal seizures have always been less amenable to drug therapy than grand mal. The recent introduction of tridione has, therefore, helped fill a most pressing need. Tridione (3, 5, 5-trimethyl oxazolidine-2, 4-dione) is the most effective drug yet introduced in the treatment of petit mal spells. The drug is also effective in some conditions associated with basal nuclear lesions; for example, athetosis and in certain behavior disturbances. Its similar favorable effect in petit mal might lend credence to the suggestion that petit mal spells arise not from the cortex but from the midbrain. The effect of tridione upon petit mal is often spectacular. It is available in 5 gr. capsules, and in an elixir and in dulcet form, each of the latter containing 2½ gr. to the dose. Approximately 70 per cent of the cases of idiopathic petit mal are benefitted. In children with petit mal associated with organic brain disease, however, the percentage of success is much less.

Tridione, unlike dilantin or phenobarbital, does not produce exacerbation of symptoms upon withdrawal. However, it does occasionally tend to precipitate or aggravate grand mal spells. Thus, in cases in which petit mal and grand mal coexist, tridione should not be given alone, but in combination with either phenobarbital or dilanin. As pointed out previously, its use with mesantoin is dangerous because of the synergistic increase in toxicity. The most common toxic symptoms from tridione are blurring of vision, and bright light blindness or hemeralopia. In some instances rashes develop which may be morbilliform and occassionally exfoliative. More serious, however, is its effect on blood and bone marrow. Leukopenia and agranulocytosis may result. Fatalities have been reported from its use. Side effects are seen in only 10 per cent of children and 30 to 40 per cent of adults, which makes tridione a more valuable drug in pediatrics, where petit mal is more commonly seen. Individuals receiving tridione should have blood counts at least once a month. A fall in the white blood count below 3,000 is an indication for stopping the drug.

Experiences with tridione indicate that there may be more than one kind of petit mal seizure, since tridione seems to control primarily petit mal spells when they are of short duration. When control is not complete, it is often noted that the remaining spells are usually of a much longer and more severe type than those originally present.

A new drug just released commercially is paradione (3, 5-dimethyl-5-ethyl-oxazolidine-2, 4-dione) an analog of tridione. It is somewhat less effective than tridione in petit mal spells but may sometimes control petit mal not controlled by tridione, especially the longer spells. It seems also to be more effective than tridione in controlling petit mal due to organic brain disease. There are fewer side effects with paradione than with tridione, especially less disturbance of vision and fewer rashes. Toxic effects on the blood may occur, however. It is available in 5 gr. soft elastic capsules, and as a liquid concentrate containing 5 gr. per cc. It is best given in combination with some other drug like phenobarbital or dilantin, but should not be given with mesantoin, since like tridione, it has a synergistic toxic effect with it. Individuals who are receiving tridione or paradione should receive periodic blood counts.

There are other drugs which can often be employed in petit mal. As previously mentioned, mesatoin is occasionally useful, as is mebaral (*N*-methyl-ethyl-phenyl-barbituric Acid). The latter drug, which also has some anti-convulsant action, has less of a sedative effect than phenobarbital and can be given generally in dosages twice as large. No ill effects other than drowsiness have been observed. It is available in ½, 1½, and 3 gr. scored tablets.

Occasionally, stimulant drugs like caffeine and benzedrine may be beneficial in petit mal. Benzedrine may be given in dosages of 2½ to 10 mg., twice a day (omitting the last dose in order not to interfere with sleep), and caffeine can be given in dosages of 1 to 5 gr., t.i.d. Recently, some of the anti-histaminics have been reported as valuable in epilepsy, but our own experience with these has not been favorable.

Occasionally, also, acidifying drugs have been found to have some benefit in petit mal, and thus, ammonium chloride or glutamic acid can occasionally cause some improvement. Acidification is not generally effective, however, unless given in the form of a ketogenic diet. The ketogenic diet is of great value in petit mal, particularly in young children. The drawback is that is it difficult to administer in a home situation.

In psychomotor epilepsy, the most beneficial drug is phenurone (phenacetylcarbamide), which is more effective in this condition than any previously mentioned drug. Phenurone is effective also in both grand mal and petit mal, and thus is an all-purpose drug. It is effective in approximately 40 per cent of the cases and may control grand mal and petit mal spells not controlled by any of the other drugs. It is not yet commercially available but is supplied in 7½ gr. scored tablets. Its mode of action on psychomotor seizures is not known.

Among its side effects must be mentioned a peculiar hyperexcitability, bordering on the psychotic. Frequently, the children are described by the parents as being refractory and to manifest a type of hyperactivity frequently seen in the post-encephalitic. Rashes are not uncommon, particularly in children. These are morbilliform in nature and usually appear about a

week after the drug is started and are associated with high temperature. It is not unlike the rash produced by nirvanol. After the drug is stopped and the rash disappears, it can be made to reappear following a single dose of phenurone.

Among the other drugs which have a beneficial effect in psychomotor epilepsy must be mentioned mesantoin, tridione, and occasionally dilantin.

It may be stated as a categorical generality regarding drug therapy in epilepsy that idiopathic forms of the disease are more amenable to therapy than are forms due to organic brain disease. In the presence of organic brain disease, unexpected and contradictory drug actions are encountered. Thus, tridione and paradione may occasionally be more effective than dilantin or phenobaribital in controlling grand mal spells, and likewise, phenobarbital or bromides may be more effective than tridione in controlling petit mal spells. Among the most difficult epileptic symptoms of organic brain disease to treat are the akinetic and the myoclonic spells. In these conditions, which are generally due to organic brain disease, all combinations of drugs should be employed before the case is considered as not amenable to drug therapy.

A drug with interesting properties is gemonil (di-ethyl-methyl barbituric acid) which is not yet commercially available. This drug has the unique characteristic of being more effective in seizures associated with organic brain disease than in idiopathic epilepsy. In a limited series of approximately 60 cases, it was beneficial in but 2 of 21 cases of idiopathic epilepsy, and in about 19 of 38 cases with organic brain disease. Its greatest theraputic effect appeared to be in the myoclonic type of seizure, where it greatly improved 8 of 13 cases. It is available in 1½ gr. scored tablets and is given in dosages about double that of phenobarbital. The only side effects noted to date have been drowsiness, and in one case, a morbilliform rash.

Several other drugs which offer promise of good anti-epileptic action are now being investigated, but experience with these has been too limited to include them in this discussion. For purposes of clarification, a table is appended, giving the names, formulae, indications, toxic effects and dosages of the drugs discussed.

The therapy of epilepsy is an individual problem, one patient with convulsions being controlled by a drug that has no effect on another patient with similar seizures. All of the drugs have some objections, either in the form of side effects or the tendency to aggravate certain types of seizures. Knowledge of the drug to be used, the trial and error method of its administration, patience, and above all, an understanding and control of all the factors involved in the care of each patient, remains the method of treatment of the epileptic syndromes.

SUMMARY

1. Phenobarbital is the drug of choice for grand mal seizures in children, and dilantin in adults, or combinations of the two.
2. Mesantoin is the drug of choice when both grand mal and petit mal coexist.
3. Bromides may be employed when none of the above are effective.
4. Tridione and paradione are the drugs of choice for petit mal. Both of these drugs have a synergistic toxic effect with mesantoin.
5. Phenurone is an all-purpose drug, being effective in psychomotor spells, where it is more efficacious than any other drugs; it is also beneficial in grand mal and petit mal.
6. Gemonil has the unique property of being more effective in organic brain disease than in the idiopathic form, and particularly in myoclonic spells.
7. Where single drugs are not effective, combinations may be tried, except for the previously noted contraindication to the combination of mesantoin with tridione and paradione.
8. The physician should be constantly aware of the toxic potentialities of the drugs he employs and alert to the occurrence of side effects. When tridione, paradione, or mesantoin are given, periodic checks of the blood are essential. Evidence of agranulocytosis is indication for dicontinuance.
9. The control of hygienic and psychiatric factors is important as an adjunct to the drug therapy of epilepsy.

TABLE 1

CLINICAL EFFICACY OF DRUGS BY TYPE OF SEIZURE

Drug	Chemical Formula	Available Form	Dosage		Therapeutic Effect				Ill Effects
			Amount	Times Daily	Grand Mal	Petit Mal	Psycho-motor	Myo-clonic	
Bromide	sodium, potassium and ammonium bromide	Tablets-0.3, 0.6, 1.0 gm. Elixir-1 gm./tsp.	0.3-1 gm. (5-15 gr.)	2-4	++	+	+		Rash, confusion
Phenobarbital	phenyl ethyl barbituric acid	Tablets-0.015, 0.03, 0.06 and 0.1 gm.	.015-0.1 gm. (¼-1½ gr.)	2-4	++++		A		Drowsiness
Dilantin	sodium 5, 5-diphenyl hydantoinate	Capsules-0.03-0.1 gm. Capsules in oil-0.1 gm.	0.03-0.1 gm. (½-1½ gr.)	2-4	++++	A	+	±	Gingivitis, rash, ataxia, diplopia
Tridione	3,5,5-trimethyl oxazolidine-2,4-dione	Capsules-0.3 gm. Dulcet-0.15 Solution-0.15 gm./tsp.	0.15-0.6 gm. (2½-10 gr.)	2-4	A	++++	++		Visual disturbances, rash, blood changes, mesantoin synergy
Paradione	3,5-dimethyl-5-ethyl oxazolidine-2,4-dione	Capsules-0.3 gm. Liq. Conc.-0.3 per cc.	0.15-0.3 gm. (2½-5 gr.)	2-4		++	+		Blood changes, mesantoin synergy
Thiantoin	sodium 5-phenyl-5-thienyl hydantoinate	Capsules-0.13 and 0.26 gm.	0.06-0.26 gm. (1-4 gr.)	2-4	++				Same as dilantin
Mesantoin	3-methyl-5,5-phenyl ethyl hydantoin	Tablets-0.1 gm.	0.04-0.1 gm. (¾-1½ gr.)	2-4	+++	+	+	±	Rash, hepatitis, blood changes
Mebaral	N-methyl ethyl phenyl barbituric acid	Tablets-0.03, 0.1, 0.2 gm.	0.03-0.2 gm. (½-3 gr.)	2-4	+	+			Drowsiness
*Phenurone	Phenacetylcarbamide	Tablets-0.5 gm.	0.25-1.0 gm. (3⅞-15 gr.)	2-5	++	++	+++		Hyperexcitability, personality disturbances, rash, fever
*Gemonil	5,5-diethyl-1-methyl-barbituric acid	Tablets-0.1 gm.	0.05-0.2 gm. (¾-3 gr.)	2-4	+	±		++	Drowsiness
Ketogenic diet									Difficult to administer at home

*Not yet commercially available

KEY: ± +, ++++ = therapeutic efficacy by degree
A = aggravates

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KEY: ± = +, ++++ = therapeutic efficacy by degree
A = aggravates

*Not yet commercially available

What Belongs in the Physician's Bag?

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Edited by:
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Dr. Max Samter, Assistant Professor of Medicine: The problem of the physician's bag has an intriguing attractiveness. As a matter of fact, many physicians at the Research and Educational Hospitals have requested on several occasions that we devote one of our programs to the subject. We have hesitated to do so because we felt that each man's opinion would be colored by personal preference, professional requirements, and regional considerations. In other words, such a Seminar should be prefaced by a rigid definition of where, when, and how the bag is going to be used. We hope, however, that by confronting Dr. Vorhaus' "ideal theoretical bag" with Dr. Weihe's time-tested and patient-tested bag we might be able to decide on a compromise bag which might prove useful for our outgoing staff of interns and residents.

Dr. Louis J. Vorhaus, II. I am quite aware of the fact that my presentation lacks one of the essential ingredients of a convincing argument, namely, experience. However, I have given the matter some searching thought as a theoretical problem and have been so aided by several articles on the same subject by others who have theorized regarding the optimal contents of the physician's bag. I understand that Dr. Weihe,

who will discuss my suggestions, is a highly successful physician who engages in general practice as well as in emergency work for the Fire and Police Departments of his neighborhood. I hope that his comments will clarify the actual needs of a physician in contrast to what a resident in a teaching hospital thinks might be needed.

The equipment which a given physician must carry in his bag depends obviously on a number of factors including (1) the type of community in which he practices — large city, suburbs, small town, rural area; (2) the adequacy of ambulance and hospital service; (3) the type of his practice — general, pediatric, obstetrical, surgical, or other; and (4) the strength of his right arm and his willingness to use it, respectively; in other words, on his philosophy toward Medicine.

My own reasoning about the contents of the physician's bag can be expained as follows: he should carry sufficient equipment and medication to render adequate treatment in any conceivable emergency. On the basis of this premise, you will find items in my list which might never be used in a long lifetime of medical practice; even so, I suspect that most practitioners will recall situations which could not have been handled effectively without the armamentarium which I propose though those occasions should indeed be rare.

Lest you scoff at the portability of such an array, let me state at the beginning that I have, without undue compression, adjusted all of the items which I am going to list into one large-size commercially available physician's bag. First then, instruments and other tools for diagnosis and therapy:

Diagnostic Equipment: (1) Stethoscope; (2) Sphygnomanometer; (3) Otoscope; (4) Ophthalmoscope: (5) Reflex hammer; (6) Tongue blades; (7) Glass slides; (8) Tablets for urine sugar, albumin, acetone, blood and nitrazine paper for pH; (9) Rectal and oral thermometers; (10) Sterile and non-sterile gloves with lubricating jelly (11) Lancet; (12) Hemocytometer, solutions, red and white counting pipettes; (13) Sterile swabs in sterile glass tubes for cultures.

Therapeutic Equipment: (1) Tourniquet. Some say to carry four so that blood can be pooled in acute pulmonary edema. (2) Stomach tube (Levine and large bore). (3) Bulb syringe. (4) Cotton applicators. (5) Cotton balls. (6) Sterile surgical instruments (small and large scissors, blunt and pointed forceps, scalpel, 2 large and 2 small hemostats, needle holder, needles and suture material). (7) Sterile syringes (2, 10, & 20 cc with an assortment of sterile needles of varying lengths and gauges. (8) Sterile bandages of various sizes. (9) Sterile vaseline gauze. (10) Adhesive. (11) Nasal speculum. (12) Tracheotomy set or "life-saver tubes". While several writers have emphasized their occasional usefulness, I do not feel qualified to comment on the advisability of carrying them routinely. Item (13) Prescription blanks — leads us over to my list of indispensable drugs. Before continuing, however, I feel that Dr. Weihe might like to comment on the diagnostic and therapeutic equipment which I have outlined so far.

Dr. Weihe: To the busy practitioner portability becomes a premium and improvisation eliminates some of the infrequently called-for items The reflex hammer, for example, can be dispensed with, and any handy solid instrument used in its place when necessary. I rarely use the tongue blades, mainly because they tend to frighten the children who make up a large part of my general practice. I carry a thermometer but seldom use it. If fever is present, it is obvious without this instrument and can usually be accurately predicted. Diagnostic equipment for blood counts sounds very good, and I orginally did some of my own counts. However, I soon discovered such discrepancies in my determinations, that I now trust only the work of an experienced laboratory technician. If the determination is of critical importance, the patient should be hospitalized. I do not carry sterile gloves or instruments, though I did when first entering practice. If a patient is seriously injured, I do not feel that having sterile instruments in my bag will make the difference between his living or dying. Hospital care should be administered without delay. I do no suturing except in the office or hospital.

I carry unsterile ambidextrous gloves in my bag. In doing a rectal or pelvic, I used household bar soap to lubricate the glove as it washes off much easier than lubricating jellies. Following the examination, I wash the glove while still

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2. Maison, G. L., The Physician's Bag, M. D. 3:70-77, 1948
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on my hand, dry, powder with talcum. Then I pull off the glove inverting it thereby. It is immediately ready for the next examination.

I carry two tourniquets; 1 catheter; used to carry a Levine tube. Bandaids are the only bandages in my bag. As for syringes, I have two 2 cc syringes with Luer-lok attachments kept in a 70% alcohol solution. I have used them repeatedly over many years without a single infection. I also carry a sterile dry 10 cc syringe with long needle for procaine injections. The Luer-lok attachments is of value to prevent the spraying of viscid solutions such as procaine penicillin all over the patient and yourself due to failure of the needle to stay on the hub.

I should like to emphasize that the practice on which I base my emergency bag needs is a suburban practice, and that ambulance service and hospital facilities are within close reach of my entire practice. I am sure my needs would be modified under different conditions.

Dr. Vorhaus: I should now like to exhibit, more or less in the order I removed them from my bag at home, the drugs I feel should be in such a bag.

DRUG	DR. VORHAUS' COMMENT	DR. WEIHE'S COMMENT
chloral hydrate paraldehyde	for alcoholic psychoses	For alcoholics I prefer i.v. caffein and sodium benzoate plus 4 cc. mag. sulfate i.m.
seconal		Main use of barbiturates is for the families of the recently deceased.
phenobarbital, oral and i.m. Sodium amytal (i.v.)		
morphine sulfate codeine		
A.P.C. or aspirin		You're competing with the corner druggist
Demerol oral and i.v. Digitoxin		
oubain	or other fast acting digitalis preparation, e.g. Lanatucide C.	
quinidine mecholyl	paroxysmal tachycardia	*I don't use. . .* Carry, but seldom use. . .
amyl nitrite nitroglycerine	angina pectoris angina pectoris	I carry. . .
atropine, oral & i.v.	*mushroom poisoning,* among other uses	
papaverine, oral and i.m. i.v. and suppository aminophylline		I use a lot of . . . . In coronaries I give 7½ gr. plus papaverine i.v. and follow with Demarol. . .
epinephrine sol. 1:1000 Coramine		Definitely needed. . .
Metrozol pictrotoxin	barbiturate intoxication	I carry these two. . . .
caffein & sodium benzoate spirits of ammonia (pearls)		Included in my bag. Wonderful stuff! A deep whiff knocks you off your feet, then you feel better. About 8c each.
magnesium sulfate Dilantin	for pt. who is having repeated convulsions over short periods of time.	I don't use. . .
Mercuhydrin oral and i.v. *Benadryl		Included in my bag. . . . I use a lot of. . . . .
Dramamine	for marked nausea	I prescribe.

Prostigmine	acute collapse of myasthenic	I've found this valuable for the heartburn of pregnancy
Pitocin	post-partum hemorrhage	Interchangeable with ergotrate
Ergotrate		
penicillin (400,000 S.R.)		I use by the bushel
Aureomycin		
sulfadiazine, oral and i.v.	emergency treatment of meningitis among other things	
B.A.L.	fulminating heavy metal intoxication	Don't see much use for it.
sodium nitrite	for cyanide poisoning	Don't see much use for it.
apomorphine	will empty stomach rapidly in suicide attempts or accidental poisonings.	Often wished I had some with me. . .
vitamin K	some bleeding problems.	Included in my bag. . .
nicotinic acid amide		
50 cc 50% dextrose		Should be carried. . . .
calcium gluconate	tetany	Carry. . . .
unit of albumin (or dried plasma)	for shock	
sterile water		Carry. . . .
sterile saline		Not necessary. . .
procaine HC1, 2%		Prefer 1%. A wonderful drug that will make many friends. I use this for desensitizing trigger points in muscle and facial pains. Use i.v. amytal as antidote for reactions — I have had two, both non-fatal
ether	emerg. anaesthesia	I just carry alcohol. . . .
ethyl chloride spray		I just carry alcohol. . . .
Merthiolate		I just carry alcohol. . . .
alcohol 70%		
Thephorin ointment	allergies	
boric acid ointment	burns	
ophthalmic ointments (several varieties) and in the ice box at home and office		
insulin		
gamma globulin		
Lipo-adreno-cortical extract		

Dr. Weihe: I would add to this list: Benzedrine, liver extract (must treat some of the PA's at home), testosterone, sodium iodide (for cardiac and bronchial asthmas), progesterone with estrogen (for threatened abortion), estrogen, vitamin B. complex (I use this plus i.v. calcium gluconate for post-influenzal debilitation. Patient experiences a flush, then usually feels much better), Mapharsen (resistant trench-mouth), and Depropanex (a smooth muscle relaxant). Many of the drugs listed by Dr. Vorhaus are not immediately necessary for house calls, and are best prescribed rather than dispensed. In this way, better rapport is established with the druggist and he is less apt to counter-prescribe. This also eliminates more bulk from the doctor's bag.

Dr. Theodore R. Sherrod, Instructor in Pharmacology: On pharmacologic grounds, I would question the inclusion of Coramine in this list. Although it acts as a powerful analeptic in the normal animal, it proves ineffective when the circulation and respiration of the animal is depressed. On the other hand, I believe that tetanus antitoxin should also be included in the list.

Dr. Best: I wonder if it might not be wise to carry some of the larger and infrequently used items in a separate bag which can be kept in the

trunk of the automobile. Emergency splints for instance might form a part of such "staple equipment".

Dr. Vorhaus: Dr. Best's suggestions bring us back to our introductory remarks that what you actually place in your bag will depend on the specific needs of your own practice. Dr. Sherrod's comment makes it clear, furthermore, that its contents might be modified by the advancing knowledge and changing trends of medicine itself so there will always be a gap between the "perfect" bag and the bag in use, and the physician's wisdom will have to bridge it.

NARCOSYNTHESIS —
An Invaluable Psychiatric Technique

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Chicago

It is the professional responsibilty of the physician in the practice of general medicine, upon referring a patient into a specialized field of medicine, to be interested in the specific procedure that the specialist indicates is necessary for that patient.

There are several fields of specialized medicine, such as surgery and obstetrics, wherein the physician can participate directly in the specialized procedure in conjunction with the consultant. However, there are other fields of medical specialties, such as psychiatry, in which the general practitioner is willing to accept a basic knowledge of the techniques that are involved and allow the direct management of the case in its entirety to the psychiatrist. Thus, correspondingly, it is the professional responsibility of the physicians in the specialties of medicine to keep the general practitioner abreast of all modern techniques at their disposal.

In the field of psychiatry, much has been written to popularize the techniques of the convulsive shock therapies, electric and insulin, and also psychotherapy. However, we feel it would be extremely valuable to the general physician to be equally familiar also with narcosynthesis, and it is the purpose of this paper to describe this technique and to demonstrate its exceptional value as a psychiatric procedure.

The earliest use of various anesthetic agents in some applied form as psychiatric aids has been described historically by Moore[1] and Beecher[2]. The use of specific barbiturates, namely sodium pentothal and sodium amytal, for narcosynthesis has been traced chronologically to its present status as described recently by the author[3].

The term "narcosynthesis" refers to the technique of the use of an intravenous injection of a barbiturate, preferably sodium pentothal or sodium amytal, to artificially induce a state of semi-narcosis and relaxation that precipitates in the diminished control of the patient's mental processes for the specific purpose of obtaining an uninhibited state of mental content; and, to facilitate in the psychiatric interpretation and analysis of the subject matter thus elicited.

Narcosynthesis serves a dual purpose in that it is diagnostic as well as therapeutic. Diagnostically, it is valuable in discovering a possible psychogenic basis for an illness by distinguishing between irreversible structurally determined disorders and functional disorders of organ systems; it aids in establishing the underlying psychodynamics, as well as in organizing a complete, uninhibited history. Therapeutically, narcosynthesis allows the patient complete relaxation, shortens the period of psychotherapy, establishes more rapidly and firmly the rapport

between psychiatrist and patient, enables the patient to accept and assimilate interpretations of his basic conflicts, and aids the patient in the ultimate process of the synthesis.

The two drugs principally used in narcosynthesis are sodium pentothal and sodium amytal. Sodium amytal has its greatest value in cases where sleep is desired following the interview, such as in hospital procedure and in prolonged narcosis. The drug of choice for office procedure is sodium pentothal, since it has a shorter induction period, and the duration of the effect is less prolonged. The effects of sodium pentothal wear off quickly so that psychotherapy may be continued in immediate sequence, and thereafter discussed with the patient in the wakened state.

Both drugs require between 0.25 and 0.5 grams as the effective dosage, although it must be emphasized that the amount administered is strictly an individual affair. Many patients may require larger doses, and we consider up to 1.0 gram within the normal range.

Since sodium pentothal is the drug of choice for office procedure, we are describing the specific technique of its preparation and administration as previously reported by the author[4]. The technique of preparation is to use the 7½ grain vial (0.5 grams) and dilute with 10 cc. of distilled water to make a 5% solution. Other variations of sodium penthothal and distilled water can be made to yield either stronger or weaker solutions. However, the above mentioned technique seems to apply to office procedure most conveniently. Sodium pentothal solutions are not stable; and for this reason only freshly prepared solutions, not over 48 hours old, should be employed. A solution that is not absolutely clear should be discarded.

The patient is placed in a relaxed, reclining position, preferably in a semi-darkened room. The drug is injected into the anticubital vein at the rate of 0.06 grams or 1 grain per minute. It is most important to inject slowly. This feature o fthe use of the drug cannot be overemphasized, since a violation can prove fatal. The patient is asked to count backwards from 100 slowly and aloud. When the speech becomes changed, such as thickened, slowed and confused, the injection is discontinued.

The patient usually speaks spontaneously and is allowed to continue. However, often the therapist may suggest topics which he feels are essential in the patient's history. Narcotherapy is performed by the therapist by taking an active part, by giving stimuli, reassurance and support, and thus lessening the patient's anxiety. When the influence of the drug has worn off the psychiatrist reviews with the patient the foregone happenings.

The outstanding indications for the use of narcosynthesis are anxiety states and hysterical reactions. In the psychoses, narcosynthesis can be used to evaluate the diagnosis, and can be used in conjunction with other psychiatric therapies; but, should never be used to replace other necessary and indicated treatment specific for the psychoses.

In conclusion, since it is the constant aim in the field of psychiatry to employ all techniques that offer the greatest opportunity to understand and treat the patients to the best of our ability, we have here submitted a procedure that has proven to be of invaluable aid as a psychiatric technique.

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CASE RECORDS OF THE COOK COUNTY HOSPITAL

KARL MEYER, LEO M. ZIMMERMAN, DEPT. EDITORS

Lymphedema of the Lower Extremities

Arkell M. Vaughn, M.D.
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This 37-year-old, white male was first admitted to Cook County Hospital in 1932 (sixteen years ago) when he was told he had a chronic lymphangitis of the left leg. Since then he noticed pain usually in the left groin. This was followed in two months by a diffuse swelling of the left lower extremity. This swelling has persisted and increased since that time, being greater or lesser depending upon the position of the leg. The swelling was worse when he was on his feet. His entire leg from the groin to the toes had become indurated.

His second admission to Cook County Hospital was May 20, 1948. In 1947 he had two Kondoleon operations in the Los Angeles County Hospital. One of the incisions has been draining a lymph-like material since June, 1947. There was no history of previous injury to the leg or filariasis. He has never been out of the country and has been in good health except for the enlarged left leg which has incapacitated him. He had run a continuous low grade temperature, 99° to 99.4° for two years.

From the Department of Surgery, Stritch School of Medicine of Loyola University, Cook County and Mercy Hospitals, Chicago.

His *past history* was negative except for typhoid fever at eight years of age and two Kondoleon operations on the left leg, previously mentioned.

The *physical examination* was essentially negative except for the left extremity. There was diffuse hardness of the inguinal lymph nodes with no tenderness. The entire left lower extremity was markedly enlarged with no pitting edema (Figure 1). There was a draining area on the inner lower part of the leg from one of the previous surgical procedures and scarring. There was three plus pitting edema in the dorsum of the left foot. The impression upon admission was chronic lymphedema of the left lower extremity of unknown etiology. Osteomyelitis of the left tibia was to be ruled out.

Treatment.—Penicillin, 300,000 units daily, was given with elevation of the extremity. Moist Dakin's soaks with Furacin dressings was instituted to offset the low grade infection which was present in the leg. An Ace bandage was applied from the toes to the groin.

Left lumbar sympathetic novocain blocks were given with no results.

Figure 1. Photograph of left lower extremity, showing enlargement due to lymphedema, at time of first operation, June 29, 1948.

Vascular studies revealed deep circulation normal with fairly good left collateral circulation.

Numerous consultations were obtained. One consultant considered the possibility of a high thigh amputation.

The patient was becoming quite disgruntled because of the long hospital stay with no apparent results and with numerous consultations and no uniformity of opinions. At this time the American Medical Association held its annual convention in Chicago and the author visited the scientific exhibit of Dr. Harry B. Macey of the Scott and White Clinic of Temple, Texas, where the treatment of lymphedema of the extremities was presented. This case appeared to be an excellent one for a trial of the Macey procedure.

Figure 2. Photograph showing skin and subcutaneous tissue sutured over split-thickness skin graft.

Operations.—The first stage of the Macey operation was performed on June 29, 1948. A longitudinal incision was made through the skin and subcutaneous tissue down to the fascia from the knee to the ankle (Figure 2). The flaps including the skin and subcutaneous tissue were dissected leaving a large area of fascia exposed. A split-thickness skin graft taken from the thigh of the same leg was then sutured to the fascia and the wound sutured over the graft (Figure 2).

The second stage of the first operation was performed ten days later, on July 9, 1948. At this time the entire skin and subcutaneous tissue was removed over the area covered by the previously placed skin graft. The patient was discharged from the hospital on July 29, 1948. Figure 3 shows the results of the first operation, November 16, 1948, four months postoperative.

Figure 3. Photograph showing appearance of the left leg approximately four months after the first operation.

The third admission to Cook County Hospital was on November 15, 1948. The first stage of the second operation was performed on November 16, 1948. An incision was made down to the fascia, as described in the first operation, from the ankle to the toes (Figure 4), and a split-thickness skin graft applied (Figure 5). The incision was extended on the medial side of the leg up to the knee and a split-thickness graft applied as before (Figure 6, Figure 7).

The second stage of the second operation was performed ten days later on November 26, 1948, when the skin and subcutaneous tissue was removed from the previously placed skin grafts (Figure 8). A long convalescent period followed due to a large granulating area in the *popliteal* space with infection. The patient was discharged

Figure 4. (left) Photograph showing incision through skin and subcutaneous tissue down to fascia.

Figure 5. (right) Photograph showing application of split-thickness skin graft to fascia on dorsum of foot.

Figure 5, 6 and 7. Photographs showing split-thickness skin grafts on the medial and dorsal surfaces of left leg.

Figure 8. Photograph showing appearance of leg ten days postoperative when the skin and subcutaneous tissue was removed from previously placed skin grafts.

on June 16, 1949, with a much smaller and serviceable leg although approximately one year had elapsed since the first operation (Figures 9, 10 and 11).

The fourth admission to Cook County Hospital was on August 23, 1949, on the orthopedic surgery service for a contracture in the popliteal area. He was operated September 1, 1949 when a contracted scar in the popliteal area was resected to normal tissue and a split-thickness graft applied. His recovery was uneventful and he was discharged on September 13, 1949. He was last seen in January, 1950. There was a slight serous drainage from a small granulating area on the medial side of the leg. He had a serviceable leg, was able to work, and was quite happy over the result.

30 North Michigan Avenue

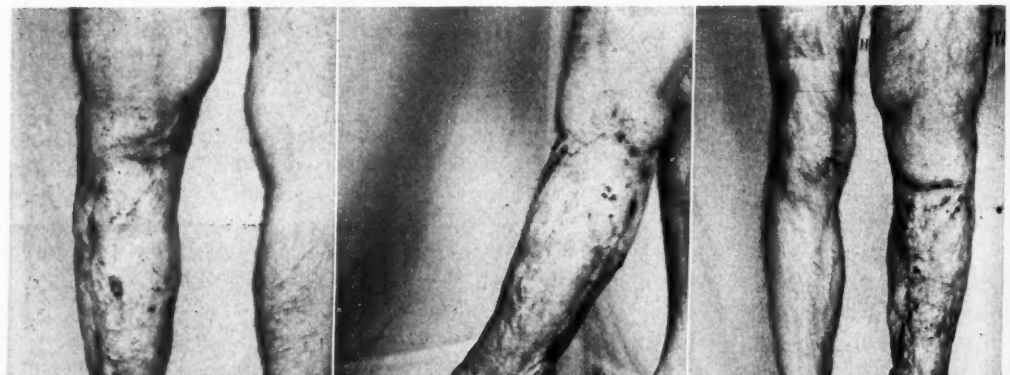

Figure 9, 10, and 11. Photographs showing anterior, lateral, and posterior views of the leg one year after first operation.

CASE REPORTS

Anaphylaxis From ACTH

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The well established fact that ACTH (Armour) inhibits or blocks the excessive formation of fibroblastic tissue[1,2] regardless of cause, led us to try its use in a case of poliomyelitis which, during the past three years, had undergone four reconstructive surgical procedures. It has also been stated that ACTH renders tissue cells immune to most antigens, either organic or inorganic.[3,4] Since this patient was sensitive to a wide variety of drugs which might have been used to alleviate pain and stiffness, it was felt that ACTH might also be beneficial from this point of view.

The patient was a well developed white male 43 years of age who contracted acute anterior poliomyelitis in October 1947. He developed a complete paralysis of both upper extremities and also a partial paraylsis of the left diaphragm. During the following year he had some return of function in the hands, wrists and right shoulder. In 1949 a flexorplasty of both elbows and a left shoulder arthrodesis was performed and on July 15, 1950 the left ulnar nerve was transplanted because of the formation of large adhesions between the nerve and the bone in the region of the elbow. Since January 1950 there has been constant complaints of pain and stiffness in the left shoulder girdle and in the joints of the upper extremity. The previous history of this patient is noteworthy in that in 1946 he had been incapacitated because of an acute rheumatoid arthritis which involved all his joints. While in the hospital in December 1949, he was given intravenous procaine for the alleviation of pain but was unable to tolerate the entire dose because of the onset of a mild reaction. He is known to be sensitive to morphine, codeine, novocaine and many of the barbiturates. In June 1950 a course of Cortisone was given, (two grams) without any appreciable change in the pain or stiffness.

At a recent conference on ACTH-Cortisone,[5] it was advised that the drug be given with novocaine to alleviate the pain of injection; consequently on Aug. 23, 1950, 12.5 mg. ACTH in 1.0cc of 2% novocaine was given intramuscularly. Within ten minutes the patient began to complain of a vertigo and a feeling of faintness. During the next few minutes there appeared a marked flush of the entire body ac-

companied by a severe burning and itching sensation which began in the scalp and progressed distally over the body. The sclera became markedly congested. There was difficulty in breathing and swallowing and a complaint of a severe sharp pain at the base of the left side of the neck and in the epigastrium. An edema of the eyelids and hands developed. The pulse rate increased to 120 and the blood pressure fell to 96/70. The patient was very apprehensive and had difficulty in lying down because of the pain in the neck and the difficulty in breathing. 100 mg. Benedryl and 5.0cc Coramine were given. The reaction began to subside within an hour. The blood pressure rose to 120/80 and the pulse was 88. Another 50mg. Benedryl was given 4 hours later. The neck pain as well as an aching and stiffness of all joints lasted for about 24 hours.

It was felt that this reaction was due to the novocaine used as the diluent, although, he had never experienced such a reaction. However, since ACTH is a protein and since this patient was sensitive to a variety of antigens, the possibility that some of this reaction might be attributed to the ACTH could not be overlooked. A scratch and patch test with novocaine and novocaine plus ACTH gave negative results. On the following day .03cc of 2% novocaine was injected intradermally and within 3-4 minutes a large wheal with numerous pseudopods was produced. A similar amount of a solution of ACTH in distilled water (10 mg. per cc) was also given intradermally. The ACTH produced a 3 plus reaction within 3-5 minutes. It was now felt that the reaction on the previous day had been produced by the combination of two allergens and that desensitization would be necessary before ACTH could be used in therapeutic doses. At 12:00N 2 mgs. ACTH in distilled water was given intramuscularly. In about 30 minutes the patient complained of a slight vertigo, faintness and nausea which lasted for about an hour. At 4:00PM he was given 4 mgs. intramuscularly which during the next 30 minutes produced no reaction. At 4:30PM an additional 2 mgs. was administered. Within 10 minutes the patient again complained of vertigo, faintness, difficulty in breathing and swallowing, pain in the neck and epigastrium and a severe generalized pruritis. There was no change in the blood pressure and pulse. Again 100 mg. Benedryl was given orally. This reaction lasted about one hour except for the pruritis which persisted for about 18 hours. No further ACTH was administered that day. On Aug. 25th the manifestations of the above reaction had entirely disappeared and the patient was given 4 mgs. at 9:00AM and another 4 mgs. at 12:00N. No further reactions occurred. He was then placed on a six hour schedule and at 6:00 PM was given 6 mgs. ACTH without reaction. The dosage was then increased by 2 mgs. each day until therapeutic dosage was reached. A very mild reaction consisting of vertigo and nausea was produced when the dosage reached 10 mgs.

This case revealed a sensitivity to ACTH and novocaine which responded to antihistiminics therapy and which was then desensitized by increasing amounts of ACTH at frequent intervals. Sensitivity tests to ACTH and the diluent should be made in all cases before instituting therapy and especially if second courses of the drug is given, since reactions may be more frequent after a lapse of therapy.[6]

In our experience ACTH gives but little pain when dissolved in distilled water which is in direct contrast to statements made in the recent ACTH-Cortisone conference.

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Subacute Bacterial Endocarditis and Diabetic Coma with Full Recovery

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Rock Island

Mrs. T. G., a white female aged 45 was admitted to St. Anthony's Hospital in a comatose condition. This patient had been ill approximately six to eight days with apparently a "flu" like syndrome, which began with a temperature of 101 to 102 and generalized aching. The patient was put to bed and symptomatic treatment was given at that time by one of us (P. P.). Further history shows that the patient had been feeling rather loggy and tired and rundown for the last two months before becoming ill with the above non-specific type of infection. She gradually became more and more drowsy and on entering the hospital was in a definitely stuporous condition. There is a past history of diabetes mellitus but the patient apparently was controlled on diet and had not been taking insulin. There has been also, a history of rheumatic fever at the age of eight, with a known type of rheumatic heart lesion following this.

Physical examination at the time of entrance reveals a white female, apparently very acutely ill, she is in a moderately deep coma and cannot be aroused by external stimuli. Examination of the head showed no bumps or masses, the ear-nose-throat examination was entirely normal throughout. The pupils reacted to light and the eyes were rather fixed and did not move readily. The neck showed a moderate degree of stiffness, there was no enlargement of the thyroid and no glands were noted. The lungs were clear to percussion and auscultation. The heart was at the upper limits of normal in size, the left border being just to the anterior axillary line. Apical systolic and pre-systolic murmurs are heard. The blood pressure is 110/76, the pulse rate is 124. The abdomen is somewhat distended, but not tender and no masses or solid organs are felt. The extremities show a 1 plus edema of the lowers. Pelvic examination showed the uterus to be of normal size and position, the adnexa were not enlarged and the cervix appeared clear.

Laboratory work showed the blood sugar to be 488 mgm %, the CO_2 combining power was 24 volumes %. The serum potassium was 15 mgm per 100 cc of blood. Urinalysis showed a faint trace of albumin, and 4 plus sugar, 2 plus acetone and diacetic acid, white blood cells 3 to 5 per HPF, red blood cells none, cast none. The blood count showed 2,500,000 red count, 16,450 whites and 7 grams of hemoglobin per 100 cc of blood. The differential showed 87% polys and 10% lymphocytes. There was one degenerated cell and 2% eosiniphils. No evidence of malarial parasites could be seen in the smear. Blood was drawn for a culture.

The patient was put on a regime for diabetic acidosis and coma, large amounts of intravenous saline were given. Approximately 3000 cc being given in the first 14 hours. The patient was given 50 units of regular insulin intravenously and 100 units of regular insulin subcutaneously at the time of admission. A Wangensteen suction was inserted and the stomach was washed out. A retention catheter was also inserted and urine specimens were run every two hours and regular insulin given according to the color of the urise test on Benedicts reagent.

Approximately 12 hours after entering the hospital the patient appeared somewhat more awake and responded to questioning. At that time she developed what appeared to be a left hemiplegia and a severe hyperthermia. The temperature went up to 106.8 and remained that way for approximately 8 hours. This temperature was controlled by ice packs, wet towels, and electric fan, and gradually was reduced to approximately 102. Temperature varied between 102 and 103 for the next 10 to 14 days.

At that time a return on the orginal blood culture showed a definite growth of streptococcus viridans in the blood stream. A diagnosis of subacute bacterial endocarditis which had been entertained before was definitely made by the above findings, together with the clinical findings

of a mitral heart lesion, fever, and embolic phenomena. At this time several areas of bleeding were noted in the conjuntiva which were recognized as petechial hemorrhages. No clubbing of the fingers could be made out, the spleen was not palpable at all throughout the course of the entire disease. The patient was put on large doses of penicillin and was given approximately a million units a day intramuscularly in divided doses over the next fourteen days.

During this regime the blood sugar was controlled and the temperature gradually settled down to a base of approximately 99 throughout the majority of the stay. The patient appeared well, ate well, and seemed to be progressing in a normal manner. After 14 days the penicillin was cut down to approximately 500,000 units a day. This was kept up for another 10 days and the patient was finally discharged 28 days after entering the hospital, with an apparent cure.

She left the hospital on a dosage of insulin of 50 units of protamine daily and a diet consisting of 180 grams of carbohydrates, 90 grams of protein, and 90 grams of fat. She has continued to do fairly well until this time, which has been approximately a year. She still has a moderate degree of residual weakness in the left arm and leg, but has very little trouble with this and gets around quite well, doing her housework daily,

In conclusion, this case may be summarized as a patient with a known type of rheumatic heart disease with combined mitral stenosis and insufficiency and diabetes mellitus. She entered the hospital in a diabetic coma due to a superimposed subacute bacterial endocarditis, while in the hospital she suffered a cerebral embolism, giving an entire left hemiplegia which has apparently cleared. The patient apparently had a complete recovery and definite cure of the bacterial endocarditis by the use of penicillin.

502 Safety Building

LET'S SETTLE THIS PROBLEM NOW

. . . I wonder how many of us ever realize that big business is spending millions each year teaching young people how to create better public relations with the firms for which they are working. Let us look at a concrete example of what is taking place:

Not long ago I called at a doctor's office where two doctors are working as partners. I asked for Dr. X. The reply of the office girl was that he was not in.

I said, "Where Is he?"

"I don't know."

"When will he be back?"

"I don't know."

"Are these his office hours?"

"Yes, but he isn't here."

"Is there anyone else waiting to see him?"

"Yes; there are six people waiting to see him."

"Have you any idea when he will be back?"

"I don't know."

Well, I thought, I'll ask for Dr. B.

"He isn't here, either."

"When will he be back?"

"I don't know."

"Have you any idea where I might find him?"

"I haven't the slightest idea where he is."

Now, to me this conversation did not create good public relations. I am sorry this happened in Wisconsin, so I can't say that is the kind of office girls they have in Illinois or over in Minnesota. *Excerpt: The Future of American Medicine, by H. H. Christofferson, M.D., Colby, Wis. M. J., Nov.* 1950.

PATHOLOGY CONFERENCES

EDWIN F. HIRSCH, DEPARTMENT EDITOR

PRESENTATION OF THREE CASES

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SYPHILITIC AORTITIS WITH CARDIAC DECOMPENSATION

This negro dentist in March 1942, then at the age of 57 years, entered St. Luke's Hospital in the care of Drs. T. Coogan and J. Davis because of cardiac decompensation. According to the clinic record he had had gonorrhea and syphilis, the latter never having been treated adequately. The heart was enlarged to the left, and had a thrill and a diastolic murmur over the aortic area. The rhythm was irregular and the blood pressure was 176/72 mms. of mercury. The erythrocytes were 4,350,000 and the leucocytes 17,950 per cu. mm. The urine contained 30 mgms. per cent of albumin and a few red blood cells and leucocytes. The Wassermann test of the blood and of the spinal fluid was negative but a diagnosis of latent syphilis was made. He received injections of typhoid bacilli with temperature elevations as high as 104.4°F. and after a series of these treatments was discharged on the 21st day in the hospital. His second admission was in July 1946 because of nocturnal paroxysmal dyspnea which had been present for a year. The physical findings were essentially the same as those present at his first admission. His blood pressure was 160/80 mms. of mercury. The right pupil reacted more sluggishly to light than the left and there was about 25 per cent loss of visual acuity in both eyes. An electrocardiogram had changes that suggested coronary artery disease and roentgenograms disclosed an enlarged heart and calcification of the aortic arch. The non-protein nitrogen of the blood was 41.4 mgms per cent. He was in the hospital for seven days with the diagnosis of syphilitic aortic regurgitation. His final admission was on March 21, 1950. He entered the hospital comatose and cyanotic. His blood pressure was 150/80 mms. of mercury. The pulse was 120 per minute and the rhythm was irregular. He had a to-and-fro aortic murmur and rales were heard at the base of both lungs. The erythrocytes were 4,380,000 and the leucocytes were 21,700 per cu. mm. The urine contained 85 mgms. per cent of albumin. For a week his temperature rose to 103.2°F. returning to normal within the same 24 hours. His pulse ranged

between 80 to 120 and the respirations to 30 per minute. Signs of cardiac decompensation remained and the lungs had increased tactile fremitus and rales. At times he was irrational and his heart was fibrillating. On the sixth hospital day the non-protein nitrogen of the blood was 94 mgms per cent. The urinary output had decreased and he was delirious. The liver was palpated 7 cms. below the costal arch. The patient remained disoriented. There were temporary improvements in the urinary output and the function of the heart. The non-protein nitrogen of the blood decreased slightly to 79 mgms per cent on the eleventh hospital day but on this day he suddenly died, while eating lunch. The clinical diagnosis was luetic heart disease and luetic aortitis with aortic insufficiency.

The anatomic diagnosis of the necropsy (trunk) included the following essentials:

Marked hypertrophy, focal fibrous scars, fatty changes and cloudy swelling of the myocardium of the heart;

Dilated left ventricle of the heart;

Saccular aneurysm of the arch and ascending portion of the aorta;

Marked calcified and ulcerated atherosclerosis of the aorta and its main branches;

Chronic fibrous changes of the leaflets of the aortic, mitral and tricuspid valves of the heart;

Atherosclerosis of the coronary arteries;

Atherosclerotic narrowing of the ostium of the right coronary artery of the heart;

Hydropericardium;

Hypostatic edema, hyperemia and large recent hemorrhagic infarcts of the lungs;

Blood clot emboli of the branches of the pulmonary artery to the middle lobe of the right lung and to the lower lobe of the left lung;

Obturator thrombosis of the right femoral vein;

Bilateral fibrinous pleuritis;

Hydrothorax;

Ascites;

Chronic passive hyperemia and fatty changes of the liver;

Chronic passive hyperemia and old infarct of the spleen;

Nephrosclerosis and passive hyperemia of the kidneys, etc.

The body of this elderly negro weighed 125 pounds. The abdomen contained approximately 800 ccs. of clear yellow fluid. The small, firm and elastic spleen weighed 130 grams and had an old infarct 4 cms. in diameter. The lower margin of the right lobe of the liver extended 8 cms. below the costal arch. The liver weighed 1470 grams, had thin capsular opacities of the right lobe and the changes of a chronic passive hyperemia. Each pleural space contained approximately 150 to 200 ccs. of a yellow fluid, and the lung on each side had scattered fibrous adhesions to the chest wall. The heart in its position in the body was large, at the base 12.5 by 10.5 cms. and from the base to the apex 13 cms. The lining of the pulmonary veins was smooth. The lining of the pulmonary artery had moderate fibrous and fatty changes. The leaflets of the pulmonic valve were thin and the ring had a circumference of 7 cms. The length of the right ventricle from the attachment of the pulmonic leaflets to the apex was 8 cms. and from the tricuspid ring to the apex was 6 cms.; the myocardium of the right ventricle measured near the septum in front was 10 mms. thick. The foramen ovale was closed. The circumference of the tricuspid ring under slight tension was 13 cms., the leaflets had slight fibrous changes. The lining of the dilated left auricle, auricular appendage and left ventricle was smooth. The mitral ring under slight tension was 11 cms. in circum. The leaflets of the mitral valve had marked fibrous changes that extended into the chordae tendineae. The chamber of the left ventricle was appreciably dilated. From the mitral ring to the apex it was 7 cms. and from the attachment of the aortic leaflets to the apex it was 8.5 cms. The ostium of the right coronary artery was 4 mms. in dia., that of the left was 3 mms. in dia. The circumference of the aortic ring under slight tension was 7.5 cms. and the leaflets had marked fibrous thickenings but no fusion of the commissures. The myocardium of the left ventricle measured along the septum behind at several levels was 1.5 to 1.7 cms. thick. Surfaces made by cutting the myocardium of the lateral wall had a tan-brown, fibrillar tissue with small grey scars, a moderate cloudy swelling and slight fatty changes. The septal myocardium was similar but had more of the fatty changes and small grey scars. The lining of all portions of the aorta had marked fibrous and fatty changes with extensive calcification and numerous soft antheromas and ulcers. These

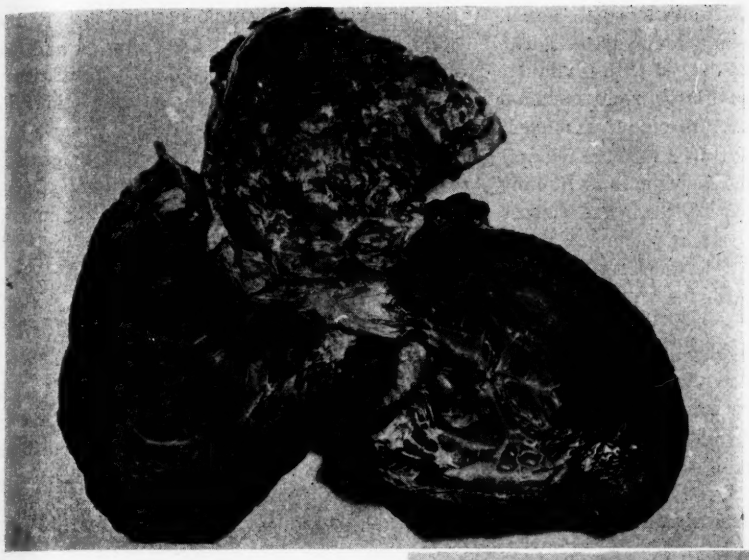


Figure 1. Photograph illustrating the marked calcified sclerosis and saccular aneurysm of the arch of the aorta, the scarred aortic leaflets, the dilated left ventricle and the myocardial hypertrophy of the heart.

Figure 2. Photograph illustrating the marked sclerosis and ulcerated atheromas of the thoracic and abdominal portions of the aorta.

changes encroached upon the orifice of each coronary artery. The ascending portion of the arch had a saccular aneurysm with an inside circumference of 10 cms. The lining of this was roughened by fibrous tissues with marked calcification. (Figures 1 and 2) The heart with 9 cms. of attached aorta and 3 cms. of the pulmonary artery weighed 610 grams. The right kidney weighed 142 grams, the left 132 grams. The cortex of the kidney at the base of the pyramid was 10 mms. wide and the corresponding pyramid had a height of 15 mms. The red brown capsular surface was coarsely granular. There were no unusual changes in the

lining of the esophagus, stomach, small bowel, colon, rectum, urinary bladder and testes. The prostate was moderately enlarged with glandular hyperplasia. The lumen of the right common iliac vein had an obturator thrombus that completely filled the channel, traced into the femoral vein. The edematous and hyperemic right lung weighed 720 grams. The pleura was smooth except for deposits of fibrin opposite the upper part of the lower lobe posteriorly, and beneath this was a recent infarct 13 cms. in diameter. A branch of the pulmonary artery with a diameter of 10 mms. contained a blood clot embolus 4.2 cms. long and 7 mms. in diameter. In the upper portion of the upper lobe was another recent infarct 9 cms. in diameter. The left lung weighed 480 grams. The tissues of the lower lobe were markedly hyperemic and consolidated. In the lumen of a branch with a circumference of 12 mms. and leading to the lower lobe was a blood-clot embolus 3.5 cms. long and 2 mms. in diameter and here was an infarct about 6 cms. in diameter. The remaining portions of the lung tissues were markedly hyperemic and edematous. Histological examinations of the heart demonstrated numerous fibrous scars in the myocardium and hypertrophy of the muscle fibers. The aorta had a marked fibrous tissue thickening of the intima edge and infiltrations of lymphocytes and tissue crevices where lipids had been dissolved. The media had focal scars with destruction of the elastic fibers and leucocytic exudates. About the vasa vasorum were small infiltrations of lymphocytes and plasma cells. Sections stained for elastic fibers demonstrated scar tissue replacement of these tissues in the media and fragmentation of those disrupted in the scar tissues. The changes of the viscera otherwise were essentially those of a chronic passive hyperemia, and in the kidneys a marked nephrosclerosis.

COMMENT

The symptoms of the illness in this patient are those of cardiac dysfunction, at times severe and disabling. The history of a syphilitic infection is significant when related to the cardiac enlargement, the aortic thrill and murmur, and the dilitation with calcification of the aortic arch. Syphilis attacks especially the thoracic portion of the aorta and the effects are serious to cardiac functions when the first portion of the arch is scarred, the aortic ring dilates, or the commissure of the leaflets are distorted and the valve become incompetent. Aortic insufficiency results and cardiac decompensation follows in grades of severity. In this patient the aorta had also marked atherosclerosis and further circulatory complications appeared terminally with thrombosis of the right iliac vein and pulmonary embolism.

RUPTURED SACCULAR ANEURYSM OF THE ARCH OF THE AORTA

A white male aged 57 years entered St. Luke's Hospital in the care of Doctor G. deTakats on March 13, 1950. A month before he had been in this hospital for the treatment of a large aneurysm of the descending portion of the aorta which had eroded two ribs on the right side. He had known of this mass in the chest for about two years. During this time he had had several courses of treatment with bismuth and penicillin, but the serological tests for syphilis remained strongly positive. The aneurysm during his first hospital stay was wired. When he returned after a month the aneurysm had increased about three times in size and he had severe pain in his chest. The erythrocytes of the blood were 4,000,000, and the leucocytes 10,600 per cu. mm. Nine hundred ccs. of a straw colored fluid were removed from the right pleura, and the I to IV intercostal nerves were infiltrated with alchol for the relief of pain. On April 8th his systolic blood pressure suddenly fell to 70 mms. Hg. and death occurred shortly afterwards.

The essentials of the anatomic diagnosis of the necropsy (complete) are:

Ruptured saccular aneurysm of the arch of the aorta;

Aneurysm erosion of portions of the I to IV right ribs and sternum;

Large recent hemorrhage into the right side of the chest;

Syphilitic atherosclerosis of the aorta and its main branches;

Marked compression atelectasis of the right lung, etc.

The body weighed 115 pounds. The front of the chest had a swelling 14 by 15 cms. and elevated 8 cms. which began just below the right clavicle, and reached from the right anterior axillary line to 3 cms. beyond the midline. The skin

Figure 3. Photograph illustrating the aneurysmal erosion of the sternum and the I-IV right ribs.

Figure 4. Photograph illustrating the large ruptured aneurysm and the syphilitic scars of the arch of the aorta.

stretched over this had four ulcers, the one above, 1 cm. in dia., extended into the thorax. Beneath the skin was a quantity of clotted blood and exudates confined in two pockets, 5 by 3 cms. and 2 by 2 cms. In the larger was a piece of steel wire 11 cms. long. The diaphragm on each side was depressed. Large portions of the I to IV right ribs and the adjacent tissues of the sternum were eroded, (Figure 3) making a circular defect here 12 by 14 cms. which was filled with soft red and grey blood clots. The right lung was collapsed by pressure, covered with fibrin, and here were about 1500 ccs. of a blood stained fluid. Projecting to the right side from the superior mediastinum were soft grey and red blood clots together 12 by 9 by 9 cms. The pericardium contained a small amount of clear yellow fluid. The lining was smooth. The collapsed right lung weighed 450 grams, the hyperemic edematous left lung weighed 760 grams. The valvular structures of the heart had no significant changes except a fibrous thickening of the leaflets of the aortic valve. The myocardium was not unusual. However, the aorta, beginning at its root had marked linear scars and atheromatous plaques. Six centimeters above the attachment of the aortic leaflets in the arch of the aorta was a circular opening 4 cms. in dia. which communicated with the large mass of blood clots mentioned. (Figure 4) It also contained 70 cms. of a fine, coiled steel wire. A true aneurysmal wall beyond the opening could not be traced but the lining tissues of the opening had marked sclerosis. No pertinent changes were in the other viscera of the body.

COMMENT

Pressure erosion of the bone structures of the chest by a large thoracic aneurysm of the aorta is common. *Preventing an increase in the* size of such a lesion is a major problem. The dangers to patients with these aneurysms are spontaneous rupture with death from internal or external hemorrhage, and infection with subsequent rupture. The latter happened in this patient. While rupture of an aneurysm of the *arch of the aorta to the outside or into a pleural* space is usual, occasionally the rupture is into the pulmonary artery. Unless the pulmonary artery is exposed fully during the postmortem examination this erosion into the artery will not be found.

EXTENSIVE TUBERCULOSIS OF THE URINARY SYSTEM AND SUPRARENAL GLANDS (ADDISON'S DISEASE)

A white male, aged 56 years, entered St. Luke's Hospital in the care of Doctors T. Coogan and T. Grauer for the twelfth time on July 14, 1950 because of weakness, nausea and vomiting. He was known to have genitourinary tuberculosis since 1947. Pain in the left kidney region, fever, malaise, and a cough had been present four years before that time. In 1947, two months after acid-fast organisms were found in the urine, his left testicle became swollen and painful, he had nocturia and dysuria, pain in both flanks and attacks of hematuria. The left testis was incised and drained. Later a draining sinus formed in the incisional scar of the scrotum. In 1948 he received streptomycin. This was given again later and also terramycin and chloramycetin. Diarrhea and weakness developed in 1949 and the diagnosis of Addison's disease was made. Crises of Addison's disease appeared months before his final admission. When admitted his blood pressure was 110/70 mms. Hg.; the pulse rate was 88 and the respirations 18 per minute. His sensorium was somewhat clouded. The erythrocytes of the blood were 3,450,000 and the leucocytes 6,750 per cu. mm. The urine had quantities of albumin and exudate cells. The non-protein nitrogen of the blood was 148 mgms, the urea 53 mgms., the creatinine 10.1 mgms., the chlorides 460 mgms., the phosphorus 6.5 mgms., and the calcium 10.9 mgms. per 100 cc. The serum sodium ranged between 116 and 130.5 mE/1, *the serum potassium 2.9 to 7 mE/1.* The management of the patient's illness became complicated by a progressive kidney dysfunction and by the crises of Addison's disease. Despite electrolyte, fluid, antibiotic and hormone therapy the patient grew worse. Edema of the lungs and face developed, the blood pressure dropped to *between 94/60 and 50/30 mms. Hg.*, and death occurred on July 21, 1950.

The essentials of the anatomic diagnosis of the necropsy (trunk) are:

Bilateral chronic caseous and ulcerative tuberculosis of the kidney;

Bilateral chronic caseous tuberculosis of the suprarenal gland;

Bilateral chronic ulcerative tuberculous ureteritis;

Chronic tuberculous urinary cystitis;

Chronic caseous tuberculous prostatitis;

Subacute miliary tuberculosis of the lungs, spleen, and liver; etc.

The body weighed 158 pounds, and the fat tissues in the depots were abundant. Each pleural space had about 150 cc. of a clear limpid yellow fluid, and scattered adhesions bound the lungs to the parietal pleura. The right lung weighed 890 grams, the left weighed 780 grams, and each had many small grey tubercles 1 to 4 mms. (Figure 5) in dia. The heart weighed 400 grams with 2 cms. each of aorta and pulmonary artery. There were no changes of the valve structures and the myocardium. Only a small residue of right suprarenal gland tissue remained, and in its place were several small pockets of caseated tissue, the largest 1 cm. in dia. The left suprarenal gland was less caseated than the right but it was markedly atrophic and only a green-brown tissue remained, 3.5 by 1 by 1.5 cms. Foci of yellow caseous material were in the residues of tissue. Both kidneys were large, the right 14.5 by 8.5 by 7 cms., the left 12.5 by 6.5 by 5.5 cms. The capsule of the right kidney stripped from a grey granular surface with many slightly raised and rounded yellow caseous nodules a few mms. to 1 cm. in dia. (Figure 6). When sectioned horizontally from its convex edge, the pelvis and the major and minor calyces were dilated, the lining was granular, necrotic and the surfaces were stained green, the deeper portions were yellow. These

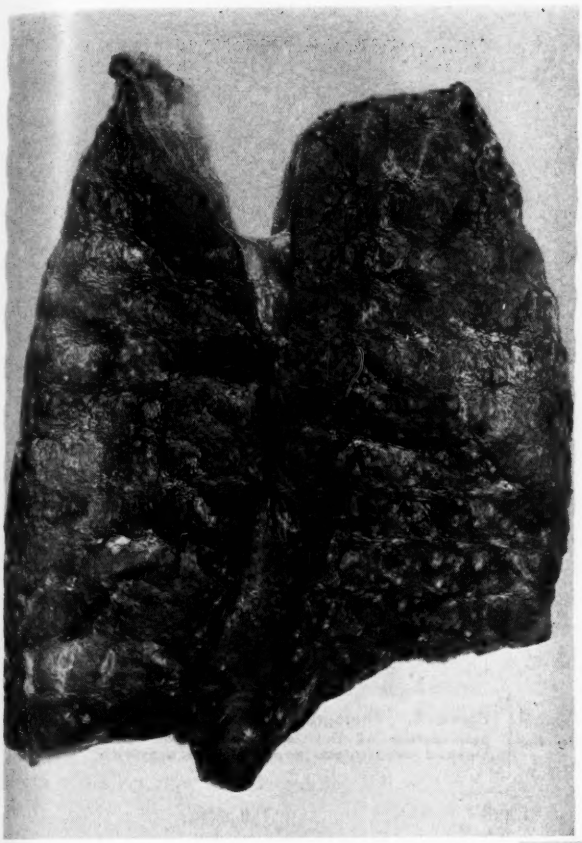
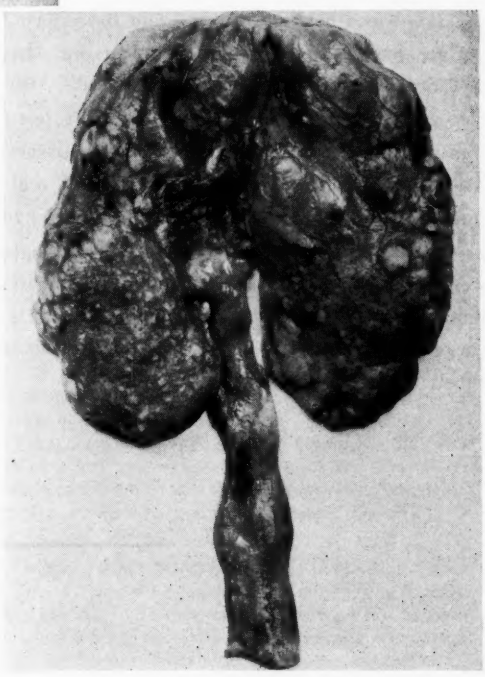


Figure 5. Photograph illustrating the miliary tubercles of the lungs.

Figure 6. (below) Photograph illustrating the caseous nodules on the capsular surface of the right kidney.



changes extended through the ureter to the urinary bladder, the wall of the ureter was thickened so that the outside diameter was 1.2 cms. The renal parenchyma ranged in width between 2.5 and 3.5 cms. There was no contrast between the cortex and medulla, only the apex of the pyramids had the usual markings. The kidney tissues otherwise were grey, mottled with red, and had soft yellow regions of caseation necrosis and grey noduels like miliary tubercles. (Figure 7). The left kidney, smaller than the right, had a marked constriction at a level 6 cms. below the upper pole. The capsule of this kidney stripped from a granular grey surface with raised nodules of yellow caseous tissues. A pocket in the upper pole 4.5 cms. in dia. contained semi liquid caseous material. (Figure 8). Otherwise the left kidney and its ureter were like the structures on the right. The lining of the dilated urinary bladdery was granular and covered with grey yellow exudates. The

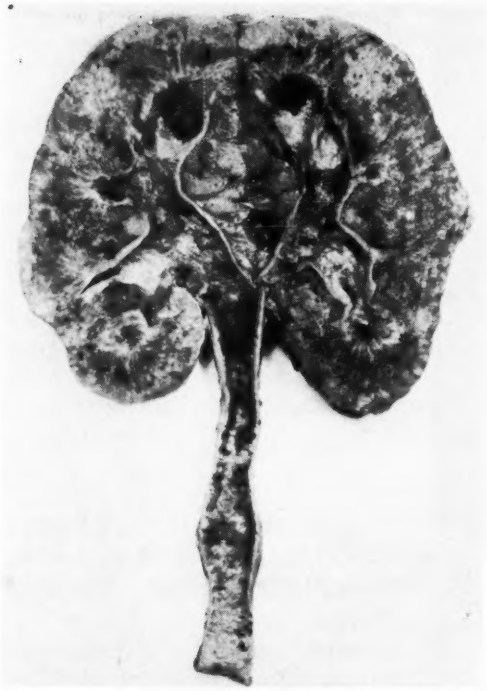


Figure 7. Photograph of surfaces made by frontal hemisection of the right kidney and illustrating the extensive tuberculous nephritis and ureteritis.

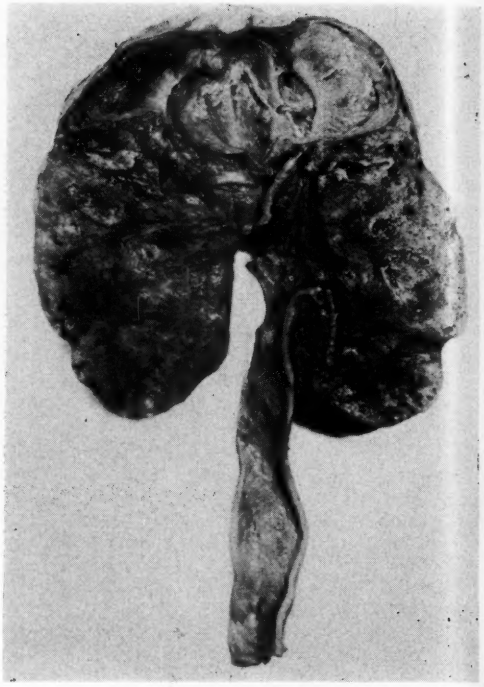


Figure 8. Photograph of surfaces made by frontal hemisection of the left kidney and illustrating the marked tuberculous nephritis and ureteritis.

prostate was 4 by 3 by 2.5 cms. and the external surface had nodules 0.5 to 1 cm. in dia. that contained caseous material. The seminal vesicles grossly were not involved. The left testis was atrophic and embedded in fibrous tissues. The liver weighed 1755 grams and had scattered miliary tubercles, the spleen weighed 370 grams and also had miliary lesions. No changes were observed in the stomach, bowel, colon and rectum. Histological examinations of many tissues demonstrated the characteristic lesions of tuberculosis.

COMMENT

Extensive tuberculosis of the kidneys, ureters, urinary bladder, left testis and prostate developed in this patient despite good medical management. Then tuberculous destruction of the suprarenal glands (Addison's disease) occurred, and finally a widely disseminated systemic miliary tuberculosis. The progressive destruction of the kidneys reduced renal functions. The loss of suprarenal gland tissues added the complications of Addison's disease. Each of the disorder was a formidable condition to treat medically, as well as the basic tuberculous infection.

NEWS OF THE STATE

ADAMS

Foundation Officers.—Dr. M. E. Bitter, Quincy, was chosen president of the Swanberg Medical Foundation at a recent meeting. Other officers include Dr. N. S. Davis, Chicago, vice president and Dr. Harold Swanberg, secretary-treasurer. Dr. Frank Benner was named accounting officer.

BOONE

Society Election.—Dr. Adrian Schreiber, Caledonia, was chosen president of the Boone County Medical Society recently, succeeding Dr. Wesley Oliver. Dr. F. W. Ulrich, Belvidere, was elected vice president and Dr. James Ellis was named secretary-treasurer. Dr. M. L. Hartman, Belvidere, was named delegate to the Illinois State Medical Society.

BUREAU

New Officers.—The newly elected officers of the Bureau County Medical Society are Dr. Donald E. Sloan, Princeton, president; Dr. H. J. Jacobs, Spring Valley, vice president; Dr. R. E. Davies, also Spring Valley, secretary; and Dr. K. M. Nelson, Princeton, program chairman.

CHAMPAIGN

Society Election.—Dr. Glenn Fishel, Tolono, was named president of the Champaign County Medical Society recently. Dr. L. T. Gregory, Urbana, was named president-elect and will head the society in 1952. Dr. Arnold Leavitt, Champaign, was re-elected secretary-treasurer. Elected to the executive committee for three years were Dr. Robert M. Hoyne, Urbana and Dr. Carl Greenstein, Champaign; two years, Dr. Gernon Hesselschwerdt, Tolono, and Dr. I. Brill, Champaign; one year, Dr. M. M. Ricketts, Rantoul, and Dr. R. H. Smith, Mahomet.

COOK

Society News.—"Some Factors Leading to Degenerative Disease" was a discussion by Dr. C. Howard Hatcher before the Chicago Rheumatism Society, November 29.

Personal.—Dr. John M. Reichert has been named medical director of the Infant Welfare Society, Chicago.—Dr. Percival Bailey was named chief of research in the state mental hospitals, newspapers reported December 6.—Dr. Henry T. Ricketts was named chaiman of the Institute of Medicine of Chicago and Dr. Walter H. Theobald, president. Other officers are Dr. Charles W. Freeman, vice president; Dr. George H. Coleman, secretary; and Dr. E. Lee Strohl, treasurer.—Dr. Henry E. Swantz, Oak Park, was named head of the local civilian medical defense committee.

Otto Kampmeier Gives Up Administrative Activities.—Dr. Otto F. Kampmeier, head of the department of anatomy, University of Illinois College of Medicine, has requested that he be relieved from administrative duties on September 1, 1951, in order to devote time to the completion of several books, one of which is an atlas of head and neck anatomy. In compliance with his request, Dean Stanley W. Olson has named a committee of five to select a new head for the department of anatomy. Dr. Eric Oldberg will serve as chairman of the committee, members of which are Dr. Stanley W. Armstrong Jr., Dr. Robert E. Johnson, Urbana; Dr. Milan V. Novak and Dr. C. C. Pfeiffer.

Faculty Appointments.—The Chicago Medical School announced the following changes in faculty: Dr. Howard L. Gasner and Dr. Howard M. Seidner, assistants in gynecology and obstetrics; Dr. Marshall U. Simon, instructor in otolaryngology; Dr.

Robert C. Busch, instructor in surgery and Dr. Lawrence Jacques, associate in surgery.

Philip Lewin Named Head of Department.—Dr. Philip A. Lewin, professor of bone and joint surgery, Northwestern University Medical School, has been appointed chairman of the department, President J. Roscoe Miller announced December 11. Dr. Lewin replaces Dr. Paul Magnuson who now is professor emeritus in the medical school. Dr. Magnuson, who joined the Northwestern University Medical School faculty in 1914, was instrumental in organization of the bone and joint surgery department. Dr. Lewin has practiced medicine in Chicago since 1914, and has been a member of the Northwestern medical school faculty since 1918. A graduate of Rush Medical College in 1911, he received postgraduate training at the University of Paris.

Legan Medicine Department Discontinued.—The Department of Criminology and Legal Medicine in the University of Illinois College of Medicine has been discontinued, Dean Stanley W. Olson has reported.

The action was taken following a recommendation by Dr. Sophie S. Sloman, head of the department, that the department be discontinued and its functions absorbed into other departments. Dean Olson concurred in the recommendation, pointing out that the department was not one which could be developed and expanded within the framework of the College of Medicine.

Dr. Olson said that the functions of the department can be adequately taken over by the new Department of Preventive Medicine, by the Department of Psychiatry, and by the proposed Department of Forensic Pathology.

Dr. Sloman has resigned as head of the department, but will retain her University appointment as clinical assistant professor of psychiatry. She also has resigned as superintendent of the Institute for Juvenile Research.

The Department of Criminology and Legal Medicine is an outgrowth of the Department of Social Hygiene, Criminology, and Medical Jurisprudence which was established in the College of Medicine in 1919.

New Series of Lectures on Blood.—A second series of lectures on the blood was launched at the Chicago Medical School, January 17, with a presentation by Dr. Harry D. Diamond, New York, on "Recent Advancements in the Treatment of Leukemias and Lymphomas." Other lectures in the series are January 31, Dr. George J. Scheff, Chicago, "The Spleen—Functional Problems"; February 14, Armand J. Quick, Milwaukee, "The Coagulation Mechanism"; February 21, Dr. Louis R. Limarzi, Chicago, "Bone Marrow Studies—Clinical Application"; February 28, Dr. Steven O. Schwartz, "Hemolytic Anemias" and March 7, Dr. Charles P. Emerson, Boston, "The Separation and Preservation of the Formed Elements and Proteins of the Blood."

Research on Cerebral Palsy.—A new program of basic research designed to uncover an answer to the cerebral palsy problem was inaugrated recently by the University of Illinois College of Medicine.

Funds for the support of this investigative study have been provided by the Cerebral Palsy Association of Illinois through the chairman of its board of directors, John Balaban, and its president, William K. Hollander. The association has allocated $50,000 for a five-year program of research.

The grant was presented by Balaban and Hollander to Dr. A. C. Ivy, vice-president of the University of Illinois in charge of the Chicago Professional Colleges.

The study will be unique inasmuch as primary consideration will be given to the basic problem of the mechanisms at work which produce the symptoms known as cerebral palsy.

Little, if any, consideration has been given to this aspect in the past. Rather, a great deal of emphasis has been placed on the need of nursing care for those afflicted with cerebral palsy, and on the necessary special instruction to physicians in the care of spastic patients.

The study will be undertaken by Dr. S. N. Stein and a team of medical investigators in the University's Department of Psychiatry, headed by Dr. Francis J. Gerty. The program will be conducted in the research laboratories of the Illinois Neuropsychiatric Institute, 912 S. Wood St., which are under the direction of Dr. Warren S. McCulloch.

For the past three years, these investigators have been studying the so-called Parkinson Syndrome, which is believed to be closely related to the cerebral palsy problem.

With the awarding of the grant by the Cerebral Palsy Association of Illinois, the investigators first plan to map out precisely the sites of damage in the brain and the distribution of transmitted impulses from those damaged areas. If this information can be obtained, it is conceivable that new methods can be developed along surgical and medicinal lines to aid the afflicted.

CRAWFORD

Society News.—Dr. Irvin H. Scott, Sullivan, Ind., discussed "Advantages of Medical Practice at the Present Time" before the Crawford County Medical Society in Robinson, December 14.

GREENE

Society Election.—At a recent meeting of the Greene County Medical Society, in Roodhouse, Dr. C. A. Billings, White Hall, was elected president of the society. Other officers elected are Dr. William Garrison, White Hall, vice president and Dr. P. A. Dailey, Carrollton, secretary-treasurer.

HENRY

Society Officers.—Dr. Anne H. Hopwood, Galva, has been elected president of the Henry County Medical Society, succeeding Dr. Thomas B. Carney, retired. She is the first woman to serve in that capacity in the county. Dr. J. C. Williamson, Toulon, was elected vice president and Dr. Fred Stewart,

Kewanee, secretary-treasurer. Dr. Hopwood, a Galva physician for seven years, has served as secretary of the staffs of the Kewanee Public and St. Francis Hospitals. She is now secretary of the Kewanee Public Hospital staff.

JEFFERSON

Medical Director Named to New Sanitarium.—Dr. Isadore Zapolsky, Elgin, has been appointed medical superintendent of the Mt. Vernon State Tuberculosis Sanitarium which is to open early this year. Dr. Zapolsky graduated from Northwestern University Medical School in 1929. He was a staff physician at the Chicago Tuberculosis Sanitarium for thirteen years and served in the U. S. Army Medical Corps. Since March, 1948, he has headed the tuberculosis unit of the Elgin State Hospital.

KANKAKEE

Personal.—Dr. Ralph Major has been named city health officer of Momence to succeed the late Dr. Charles H. Ruch.

KNOX

New County Officers.—New officers of the Knox County Medical Society were elected at a meeting in Galesburg, November 16. They are as follows: Dr. F. M. Huff, president; Dr. J. P. Graham, vice president; Dr. Alexander M. Duff Jr., secretary-treasurer; Dr. J. C. Redington, delegate to the Illinois State Medical Society; and Dr. Crosiar G. Bower, alternate, all of Galesburg. Dr. John H. Glynn, Chicago, technical director of Armour Laboratories, discussed "ACTH" at the meeting.

MACON

Society Election.—At a recent meeting of the Macon County Medical Society, the following officers were elected: Dr. D. F. Loewen, president; Dr. I. H. Neece, president elect; and Dr. Maurice D. Murfin and Dr. Ferris D. Highsmith, reelected secretary and treasurer, respectively, all of Decatur.

MADISON

Society Officers.—Dr. Gordon F. Moore, Alton, was recently elected president of the Madison County Medical Society, succeeding Dr. W. E. Delicate, Edwardsville. Other officers elected were Dr. W. W. Brown and Dr. Eugene F. Moore, both of Collinsville, vice president and secretary, respectively; and Dr. Cecelia Hellrung, Edwardsville, treasurer. Dr. E. H. Theis, Granite City, was named medical legal member and Dr. Delicate was appointed to the board of censors. Serving with him on the board are Dr. Maurice Williamson, Alton, and Dr. H. M. Cravens, Collinsville. The election of officers followed with a talk by Dr. Johann Leopold Ehrenhaft, Iowa City, associate professor of surgery, State University of Iowa College of Medicine, on "Surgical Lesions of the Chest in Children."

Personal.—Dr. L. D. Archer became president of the medical staff of Wood River Township Hospital, January 9. Other officers are Dr. L. L. Baker, vice president; Dr. W. J. Reuter, Bethalto, secretary-treasurer. Named to the executive committee were Drs. Archer, Reuter, Thomas Kelly, Maurice Wohl and W. V. Roberson. Named to the credentials committee were Drs. Archer, Reuter, E. R. Quinn, H. S. Mendelsohn and B. L. Roberson.

New Officers of Hospital Staff.—Dr. James D. McCloskey was elected president of the medical staff of St. Joseph's Hospital, December 12, succeeding Dr. G. A. Rawlins. Other officers elected were Dr. Donald S. Bottom, vice president and Dr. Henry Halley, secretary-treasurer.

MC DONOUGH

Personal.—Dr. Richard Franck, Bushnell, was chosen president of the medical staff at St. Francis Hospital in December. Dr. Eric E. Wisshack, Macomb, was named vice president and Dr. Olin A. Dively, also Macomb, secretary-treasurer.

PEORIA

Personal.—Dr. Dan Morse, superintendent of the Peoria Municipal Tuberculosis Sanitarium, was elected president of the Peoria Academy of Science, December 13.

Society Election.—New officers named recently by the Peoria Medical Society include Dr. Clifford P. Strause, president; Dr. Carl E. Sibilsky, president-elect; and Dr. Carl F. Neuhoff, reelected secretary-treasurer. Dr. Charles D. Sneller is the retiring president. Members of the advisory council named were Dr. Clarence A. Magaret, reelected, and Dr. Joseph Belsley. Delegate to the Illinois State Medical Society is Dr. Elliott P. Burt, with Dr. William A. Michael, alternate.

PIKE-CALHOUN

New Officers.—The Pike-Calhoun Medical Society recently elected Dr. Jack M. Bailis as the new president, with Dr. J. A. Miranda Vargas, as vice president; Dr. W. Robert Maloney, secretary-treasurer and Drs. P. H. Dechow and W. W. Kuntz, delegate and alternate, respectively, to the Illinois State Medical Society.

ROCK ISLAND

Society Election.—At the annual meeting of the Rock Island County Medical Society recently, Dr. J. G. Gustafson, Moline, was elected president, to succeed Dr. S. P. Durr, Rock Island, retired. Other officers elected were Dr. A. W. Wise, Rock Island, president elect; Dr. H. C. DeBourcey, East Moline, first vice president; Dr. Carl T. Johnson, Moline, second vice president; Dr. C. S. Costigan, Moline, secretary; Dr. Phoebe Pearsall, Moline, treasurer; Dr. P. P. Youngberg, Moline, historian; and Dr. H. P. Miller, Rock Island, medico-legal advisor. Drs. D.

B. Freeman and J. K. Hanson, both of Moline, were reelected delegates to the Illinois State Medical Society.

Society News.—Speakers before the Rock Island County Medical Society, in Moline, January 9, were Dr. Ralph E. Dolkart, assistant professor of medicine, Northwestern University Medical School, and Dr. Stephen L. Aldrich, fellow, parmly research in medicine, Northwestern University Medical School and St. Luke's Hospital. The subject under discussion was "The Use of ACTH and Cortisone."

SANGAMON

Society News.—Dr. Orren D. Baab, clinical assistant, department of bone and joint surgery, Northwestern University Medical School, addressed the Sangamon County Medical Society, January 4, on "Treatment of Late Wrist Injuries."

ST. CLAIR

New Society Officers.—Dr. Charles F. Alderson is the new president of the St. Clair County Medical Society, succeeding Dr. James E. Wheeler, Belleville. Other officers are Dr. Edward W. Cannady, president elect; Dr. Owen J. Eisle, vice president; Dr. Louis Kappel, secretary; and Dr. Harold McCann, treasurer. All are of East St. Louis.

VERMILION

Society Election.—Dr. O. J. Micheal was chosen president of the Vermilion County Medical Society at its December meeting. Other officers named are Dr. Jean Moore, vice president; Dr. D. L. Dickerson, secretary-treasurer. Dr. William A. Brams, associate professor of medicine, Northwestern University Medical School, addressed the meeting on "Treatment of Heart Failure." His presentation terminated an afternoon symposium on heart disease held in conjunction with the Illinois Heart Association. The January meeting was addressed by Dr. Claude N. Lambert, associate professor of orthopedic surgery, University of Illinois College of Medicine, on "The Principles of Fracture Treatment." The society announced that Dr. Holland Williamson, president of St. Elizabeth Hospital staff and Dr. R. E. Bucher, president, Lake View Hospital staff, are collaborating with the civilian disaster committee in alloting medical care in event of an emergency.

WHITESIDE

Society Election.—Dr. R. H. Lester, Morrison, was recently elected president of the Whiteside County Medical Society, succeeding Dr. Glenn J. Pohly, Rock Falls. Other officers named, all of Sterling, are Dr. R. N. Redmond, vice president; Dr. M. David Burnstine, secretary-treasurer; Dr. L. S. Reavley, delegate to the Illinois State Medical Society, and Dr. Fletcher Austin, alternate.

WINNEBAGO

Society News.—Dr. Edgar S. Gordon, associate professor of internal medicine, University of Wisconsin Medical School, Madison, discussed "Use of Isotopes in Biology and Medicine" before the Winnebago County Medical Society in Rockford, December 12.

HEALTH DEPARTMENT ACTIVITIES

Work on Tuberculosis Sanitarium Nearing Completion.—Construction of the Mt. Vernon State Tuberculosis Sanitarium, the first State institution of its kind in Illinois, is nearing completion, and furniture and supplies are on order with opening the hospital scheduled early next year.

The sanitarium which will be operated by the state Department of Public Health has a capacity of 100 beds for patients.

The professional staff and other personnel are being recruited rapidly. Among appointments already made are the following:

Dr. Isadore Zapolsky of Elgin, Medical Superintendent; Mr. George Weber of Olney, Business Manager; Mrs. Barbara Fletcher of Blue Island, Chief Nurse; Miss Corinne Hamilton of McLeansboro, Dietician; Mr. Harold U. Anderson of Mt. Pulaski, Chief Engineer.

DEATHS

WILLIAM BAHRENBURG, retired, Belleville, who graduated at the Hahnemann Medical College and Hospital, Chicago, in 1884, died December 26, aged 90. He was a member of the Illinois State Medical Society "Fifty Year Club."

ERNEST E. BULLARD, Girard, who graduated at St. Louis University School of Medicine in 1910, died December 2, aged 65.

CHARLES F. CLAYTON, Chicago, who graduated at Rush Medical College in 1897, died in Lake Worth, Florida, January 5, aged 82.

DWIGHT FREEMAN CLARK, Evanston, who graduated at Rush Medical College in 1903, died January 4, aged 72. He was on the surgical staff of Northwestern University Medical School and since 1937, president of the Evanston Historical Society.

ROY G. EMPSON, Valmeyer, who graduated at Washington University School of Medicine, St. Louis, in 1912, died December 16, aged 65. He was a member of the Illinois State Medical Society "Fifty Year Club."

JAMES P. FITZGERALD, retired, Winnetka, who graduated at New York University College of Medicine in 1916, died December 25, aged 60.

CLARENCE M. FRYE, Sterling, who graduated at Rush Medical College in 1902, died in Jane Lamb Hospital at Clinton, December 1, aged 73. He served as coroner of Whiteside County for 28 years.

MICHAEL GLEASON, Mendota, who graduated at Creighton University School of Medicine, Omaha, in 1927, died December 25, aged 49. He was a member of the American Trudeau Society.

WILLIAM T. HARSHA, Chicago, who graduated at Northwestern University Medical School in 1908, died in Miami, Fla., December 15, aged 66. He was a member of the American College of Surgeons.

STEPHEN CLEMENT HOGAN, Chicago, who graduated at Chicago College of Medicine and Surgery in 1912, died October 31, aged 67.

CHARLES O. HOIBY, retired, Chicago, who graduated at Rush Medical College in 1902, died December 24, aged 80.

MARTIN DARWIN JONES, Oak Park, who graduated at Rush Medical College in 1899, died December 29, aged 80. He was a member of the American College of Surgeons, and of the Illinois State Medical Society "Fifty Year Club."

TADEUZ M. LARKOWSKI, Chicago, who graduated at Rush Medical College in 1923, died December 24, aged 52, of cerebral hemorrhage. He was professor of surgery at Stritch School of Medicine of Loyola University.

ALBERT E. LUCKHARDT, Chicago, who graduated at Albert-Ludwigs—Universität Medizinische Fakultät. Erlangen, Bavaria, in 1901, died January 6, aged 72. He was formerly associate clinical professor of medicine at Loyola University School of Medicine.

FREDERICK MENGE, retired, Chicago, who graduated at Northwestern University Medical School in 1892, died January 8, aged 81. He had practiced in Chicago for 38 years as an otolaryngologist.

NOAH SCHOOLMAN, Chicago, who graduated at Jefferson Medical College of Philadelphia in 1903, died October 21, aged 75, of arteriosclerotic heart disease.

MAURICE L. SEIDNER, Chicago, who graduated at Jenner Medical College in 1917, died January 1, aged 60. He had practiced medicine in Chicago for 31 years.

RICHARD E. SOMMA, Chicago who graduated at Rush Medical College in 1937, died January 12, aged 46. He had been medical examiner for the Prudential Life Insurance Company.

CHARLES M. THROCKMORTON, retired, Park Ridge, who formerly practiced in St. Louis, graduated at Jefferson Medical College of Philadelphia in 1885; died December 16, aged 93.

"FOR THE COMMON GOOD"

Health Talk on TV.—Since the last issue of the Illinois Medical Journal, the following telecasts have been presented over WGN-TV, Channel 9:

George Wakerlin, Living with Your Blood Pressure, December 20.

Leo P. A. Sweeney, Can You See, December 27.

Coye C. Mason (repeat), What is Pathology, January 3.

A. Florence Lilley, D.D.S., Your Child's Bite, January 10.

Albert H. Andrews, Jr., Your Voice and You, January 15, 1951.

Jules H. Masserman, Why You Behave as You Do, January 22.

Your Doctor Speaks over WFJL, Thursday evening, at 7:30 carried the following transcribed broadcasts under the auspices of the Educational Committee:

John L. Reichert, How Immunization Protects Your Children, December 28.

Y. T. Oester, Atomic Medicine, January 4.

Irving H. Zitman, Your Blood Pressure. January 11.

S. William Becker, Cosmetics and Care of the Skin, January 18.

Robert R. Mustell, Highlights in the Practical Care and Training of Children, January 25.

You and Your Baby over Station WAAF, Tuesday mornings, at 10:30 a.m. carried the following live broadcasts; this series is being repeated:

William H. Elghammer, The Second and Third Month of Life, January 2.

George L. Drennan, Jacksonville, Immunization, January 9.

Morley D. McNeal, Highland Park, A Mother's Love, January 16.

Here is Your Doctor over Station WCFL, Saturday mornings at 11 a.m., presented the following physicians in transcribed broadcasts under the auspices of the Educational Committee:

Samuel J. Taub, Allergic Diseases, December 30.

Ralph H. Kunstadter, The Overweight Child, January 6.

Steven O. Schwartz, Causes and Treatment of Anemia, January 13.

Carl C. Pfeiffer, How Miracle Drugs Are Born, January 20.

Lectures Arranged Through the Educational Committee:

Paul K. Anthony, January 2, Women's American ORT, Behavior of the Preschool Child.

Philip Lewin, January 17, Kiwanis Club of Chicago Heights, Orthopedic Rehabilitation of Poliomyelitis.

Willard O. Thompson, January 23, Northwest Branch, Woman's Auxiliary, on Obesity, illustrated.

Hugo R. Rony, February 9, Physicians' Fellowship Club Auxiliary, February 9, on Reducing Safely.

Joseph Greengard, February 14, Prospect Heights Child Study Group, on How Emotions Affect Physical Health.

Jerome S. Beigler, March 6, Chesterfield Woman's Club on Life Can Begin at Forty.

L. L. Fatherree, Joliet, March 13, Bloomington Woman's Club, on Public Health.

Lectures Arranged Through the Scientific Service Committee:

Francis D. Wolfe, Chicago, Henry County Medical Society, January 11, on "Polyps of the Large Intestine and Their Management.

Irwin R. Callen, Chicago, Kankakee County Medical Society in Kankakee, January 16, on Newer Developments on Coronary Disease.

Chester C. Guy, Chicago, McDonough County Medical Society, January 26, in Macomb, on Bleeding Peptic Ulcer, illustrated.

Adrien Ver Brugghen, Chicago, Whiteside-Lee County Medical Societies in Rock Falls, March 8, on Head Injuries.

INFECTIOUS MONONUCLEOSIS MAY BE SERIOUS

Infectious mononucleosis is thought of as a benign disease. However, one of its complications, rupture of the spleen, carries a high mortality. In 1948, Timmes, Averill and Metcalfe reported a mortality of 30 per cent in 16 cases collected from the literature. We have reviewed these cases and collected three others and are reporting an additional case, making a total of 20 cases. The overall mortality in these 20 cases is 25 per cent. Sixty per cent were undiagnosed, and 40 per cent of these died. Rupture of the spleen in infectious mononucleosis may be so fulminating that death occurs before any life-saving measures can be taken. Such a rapid termination occurred in the second case, reported by Smith and Custer, which was seen at 8:45 a.m. with symptoms suggesting "acute gastritis", was admitted to the hospital at 10:55 a.m. with the diagnosis of acute hepatitis without jaundice, and died at 11:20 a.m., 25 minutes after admission. Ziegler's case died 2 hours and 50 minutes after onset of acute symptoms.

The most common symptom of ruptured spleen in infectious mononucleosis is a sudden severe agonizing pain in the left upper quadrant. This was seen in 70 per cent of the reported cases. In almost all patients the pain was referred to the left shoulder. At times this sudden pain was preceded by mild abdominal discomfort for several days. Signs of shock were practically immediate, and in several instances the patient collapsed or fainted. Weakness, dizziness, perspiration, nausea and vomiting frequently followed. The abdomen became tender, tense, distended, sometimes rigid. Greatest tenderness was usually over the spleen, but generalized tenderness was frequent and occasionally tenderness occurred over McBurney's point. *Excerpt: Ruptured Spleen in Infectious Mononucleosis, Sandra Gulben, M.D., J.A.M.W.A., Dec.* 1950.

Due to its extremely wide antibacterial spectrum and the minimum chance of the development of resistant strains, many physicians find 'Eskacillin-Sulfas' the ideal therapy when immediate medication is necessary and lack of either time or laboratory facilities prevents exact determination of the specific organism involved.

Each teaspoonful (5 cc.) of 'Eskacillin-Sulfas' contains:

Crystalline potassium penicillin G	100,000 U.
Sulfadiazine	0.167 Gm.
Sulfamerazine	0.167 Gm.
Sulfamethazine	0.167 Gm.

'ESKACILLIN-SULFAS'

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why 'Eskacillin-Sulfas' is in fluid form:

We concluded—after weighing every possibility—that 'Eskacillin-Sulfas' should be a *fluid* for the following reasons:

1. Tablets are impractical because the bulky nature of the sulfonamides makes it virtually impossible to manufacture a small, easily-swallowed tablet.
2. The fluid form assures more rapid attainment of therapeutic blood levels.
3. A palatable fluid is the ideal form for children and for the many adults who balk at, or have difficulty with, tablet medication.

'Eskacillin-Sulfas' is so pleasant tasting your patients will find it easy to take whatever amount you prescribe—and, because of its fluid form, you will find it easy to adjust the dosage.

PHYSICAL MEDICINE ABSTRACTS

TRACHEOTOMY IN POLIOMYELITIS

Robert J. Strobel, M. D., and Morton Canfield, M. D., New Haven, Conn. In ARCHIVES OF OTOLARYNGOLOGY, 52:3:341, September 1950.

During the epidemic of 1949 tracheotomies were done on patients with poliomyelitis in the New Haven Unit of the Grace-New Haven Community Hospital for the first time. The large number of tracheotomies was due both to a higher percentage of patients with severe paralysis requiring tracheotomy and to better understanding of the signs and symptoms of respiratory distress in these patients. The recent excellent articles by Galloway, Priest and others were instrumental in emphasizing the advantages of tracheotomy and the dangers of unrecognized anoxia. Our experience confirms their observations. Delay or failure to do a tracheotomy may result in needless fatality. We wish to record several pertinent observations.

The otolaryngologist should be consulted immediately concerning every patient having poliomyelitis with symptoms of bulbar involvement or respiratory difficulty.

In a desperately ill patient in need of tracheotomy, it is probably more dangerous to delay the tracheotomy than to perform it.

Various physiologic considerations of the cough and swallowing mechanisms are reviewed.

Tracheotomy was done on 10 patients with bulbar poliomyelitis. Five of these patients died.

In all surviving tracheotomized patients, the tracheotomy was probably a life-saving procedure. Earlier tracheotomy in 3 of the 5 who died might have been life saving.

ORTHOPEDIC ASPECTS OF SHOULDER DISABILITIES

Carl Berg, M.D., Washington, D. C. In ARCHIVES OF PHYSICAL MEDICINE, 31:11:703, November 1950.

This is an outline of causes of shoulder pain, for without accurate diagnosis, intelligent treatment is impossible.

Pain in the upper extremity, or brachialgia, is very common, frequently incapacitating and often misdiagnosed. Anything which produces pressure anywhere along the nerve pathways supplying the upper extremity can produce pain.

If motions of the neck are limited and painful or associated with muscle spasm, it is reasonable to suspect that there is something wrong with the cervical spine or its associated structures. If motion in the shoulder joint is limited or painful, one may assume that this joint or its accessories is abnormal.

Probably the most common cause of pain in the neck and shoulders is on a postural basis.

(*Continued on page 62*)

STEIGMANN AND SCHLESINGER* in the Gastrointestinal Clinic of the Cook County Hospital, Chicago, made a five year study of the effects of available antacids in the treatment of gastroduodenal ulceration.

Various resinous substances were tested including "the new type of 'antacid' "—Resmicon—a synergistic combination of a finely dispersed ion-exchange polyamine resin with a specially processed form of gastric mucin.

Resmicon was given to a series of patients over a period of 2 to 15 months. Most of the patients chosen were those who did not respond well to therapy with other antacids.

EFFECT ENHANCED—The investigators confirmed their previous findings** namely that "the admixture of gastric mucin enhances the effect of the resins."

QUICK RELIEF—"Most patients had good symptomatic relief within the first week (two to seven days) of 'Resmicon' treatment . . .

"They felt better, ate better and gained weight. The majority took the tablets well and there were no complaints regarding constipation or diarrhea."

HEALING ENCOURAGED—"Simultaneously with clinical improvement the patients with gastric ulcer showed significant changes in the size of the craters when x-rays were taken at weekly or bi-monthly intervals.

"Those who were gastroscoped (a total of 19) also showed healing of the ulcer."

"This new substance [Resmicon] appears to combine the good effects of resins (neutralization of the hydrochloric acid in gastric juice without interfering with the acid-base balance) with those of gastric mucin in the treatment of gastroduodenal ulcer."

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*Steigmann, F., and Schlesinger, R. B.: A Resin-Gastric Mucin Mixture in the Medical Management of Peptic Ulcer, American J. Dig. Dis. *17*:361-365 (Nov.) 1950.

**Scientific Exhibit of the A. M. A., Atlantic City Session, 1949.

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Solvents which permit the antiseptic to reach bacteria protected by fatty secretions or epithelial debris.
Clear definition of treated areas. Rapid drying.
Ease and economy of preparing stock solutions.
Solutions keep indefinitely.
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Physical Medicine (Continued)

The patient is approaching or has arrived at middle age and usually is engaged in a sedentary pursuit. His discomfort often is definite upon arising in the morning but is most severe after sitting for long periods with the head bent forward over a bench or desk, and especially after driving a car for a long distance.

The mechanism of these changes develops in the following way: As the shoulders continue to sag, the adductors and internal rotators of the humerus become increasingly shortened. The head moves forward so that the cervical spine becomes extended. The anterior cervical muscles contract. The scalene and pectoralis minor muscles take part in this change. The scapula elevators become stretched and weakened, allowing the scapulas to descend. This produces the typical round-shouldered chin forward position. Basically, the remedy lies in developing the scapula elevators. This is accomplished by exercises which the patient performs himself. It cannot be effectively accomplished until the tight anterior structures have been stretched. Heat to the contracted muscles and passive and active stretching make it possible to develop the trapezii by active exercise. A shoulder support and stretching of the neck by traction often are valuable adjuncts. If pain is acute, a collar is of great help. Attention to a proper sleeping position is important. A firm mattress to prevent sagging and a bolster type of pillow under the neck with just enough support under the head to maintain it in neutral alinement are indicated. Total postural correction is necessary for satisfactory results.

PHYSICAL MEDICINE IN THE TREATMENT OF SHOULDER DISABILITIES

K. G. Hansson, M.D., New York. In ARCHIVES OF PHYSICAL MEDICINE, 31:11:696, November 1950.

The commoner shoulder disabilities may be considered in three groups:

(a) When pain is the cardinal symptom;

(b) When the main difficulty is weakness of the shoulder;

(c) When the main factor is stiffness of the joint.

Pain.—I. In the first group, the pain is due

(*Continued on page* 64)

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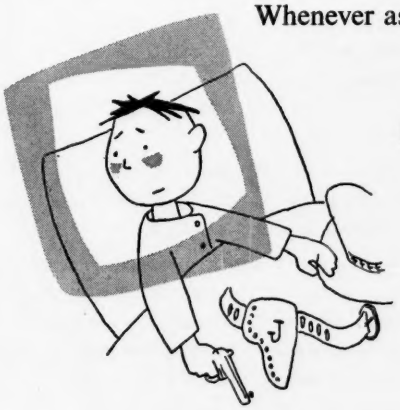

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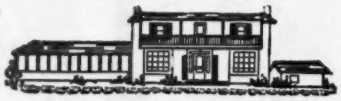

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Physical Medicine (Continued)

to peritendonitis, which can be treated conservatively by the use of an ice bag and sling in the acute stage or the application of heat and exercise in the chronic stage.

II. Radiculitis is a nerve pain that may reach from the neck down to the hand. Symptoms of pain in the occipital region over the scapula, shoulder, forearm or hand generally indicate different levels of root pressure. Poor posture or osteoarthritis, or a combination of the two, usually is the cause.

III. The scalenus anticus syndrome includes pain about the shoulder and upper extremity following the radial, ulnar and medial nerves. Often there are vascular complaints and vasomotor symptoms, and these usually indicate pressure of the brachial vessels or brachial plexus passing over the bony ridge or the thorax. Treatment consists in relieving this pressure.

Weakness.—I. Poliomyelitis often is followed by residual weakness of the deltoid muscle. It is most important to support the weak muscle and maintain the tone and blood supply of the same muscle.

II. Serratus magnus paralysis of the long thoracic nerve will produce a typical winged shoulder. Treatment here also is support of the weakened muscle and proper exercise to regain muscular strength.

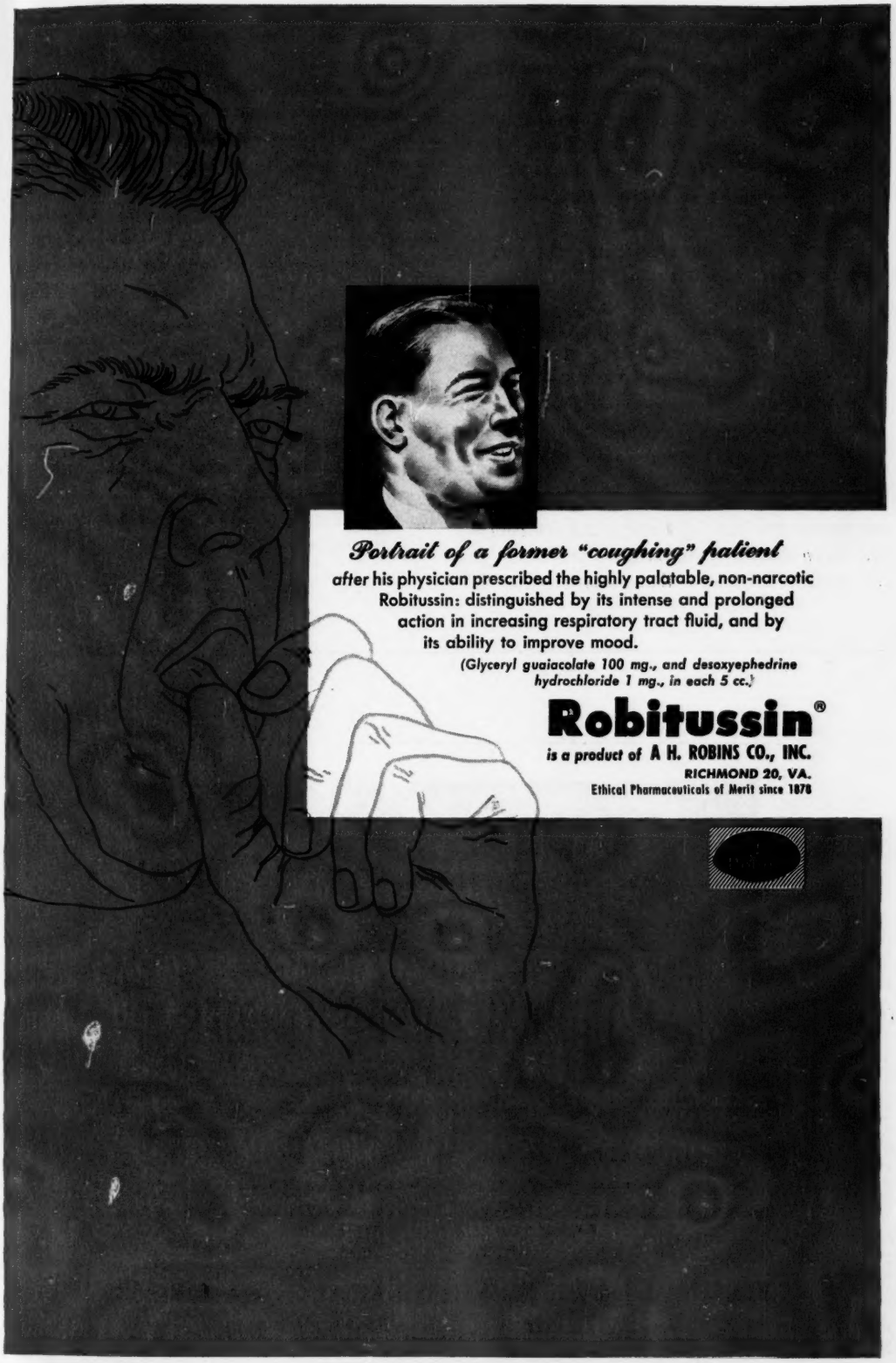
III. Erb's palsy, clinically, produces flacoid paralysis of the upper extremity, but later deformity develops as a result of contractures of unopposed muscles. With this in view, splintage and conservative treatment over a long period of time are important.

Stiffness.—I. Rheumatoid arthritis of the shoulder joint should be treated the same as arthritis in any part of the body.

II. Frozen shoulder may follow any pain of the upper extremity and often results in retrogression of function when shoulder joint movement is substituted by shoulder girdle movement. Treatment should be based on retraining the patient in the proper reflex pattern.

III. Of fractures about the shoulder, impacted fractures of the cervical neck can be placed under treatment in the second day. It is most important, however, to emphasize the external

(*Continued on page 66*)



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Physical Medicine (Continued)

rotation which often is lost by the position of the arm in a sling. Without external rotation, complete abduction of the shoulder is impossible.

If more specific diagnosis of shoulder disabilities is obtained, more specific treatment will follow, with better results for the patient.

SUCTION SOCKET PROSTHESIS FOR THE ABOVE KNEE AMPUTEE

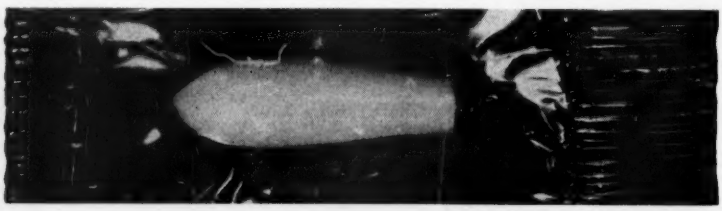
John H. Aldes, M.D., F.A.C.S., Van Nuys, Calif. In ARCHIVES OF PHYSICAL MEDICINE, 31:11:709, November 1950.

The suction socket prosthesis is an artificial limb which is held on by a moderate suction created in the closed socket and is so fabricated that it conforms to the anatomic features of the stump, thereby allowing the muscles of the stump to control all physiologic movements of the limb. The only apparent difference between the conventional above-the-knee prosthesis and the suction socket leg is that the latter eliminates all suspension harness, pelvic belt and hip control. . .

In the selection of the group for the initial use of suction socket, one of the factors that had to be considered was the muscle tone not only of the stump but of the opposite leg and the entire body as well. Each applicant was examined by the physical therapist. Gait, posture and muscle strength were important if we were to evaluate the wearer accurately. Very few of the group selected could be classified as good walkers. Postures were poor, and in about 50 per cent of the patients muscle tone of the stump was only fair.

Heavy resistance exercises have proved most beneficial in strengthening not only the stump and the opposite leg but the entire body as well. Many of our suction socket applicants who had worn a conventional prosthesis for several years had hip contractures, poor quadriceps tone in both thighs, weakness of the opposite knee and

(Continued on page 68)



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Physical Medicine (Continued)

general flabbiness in the abdominal and lower spinal muscles.

Replacement of the conventional leg with a suction socket prosthesis generally causes imbalance in gait. To overcome this imbalance, the patients are placed on crutches and are given walking exercises to be done in front of mirrors.

Walking instructions should be given gradually after the suction socket has been fitted.

Summary:—(1) A suction socket prosthesis can be used successfully in about 75 per cent of the above-the-knee amputees if the stump is at least 10 inches in length below the greater trochanter, is well formed and has good muscle tone.

(2) The best results with this prosthetic device are obtained with patients between the ages of 21 and 40.

(3) The majority of failures with the suction socket are due to poor fitting.

(4) Physical rehabilitation of the amputee is a vital step toward the success of the suction socket.

(5) The advantage of the suction socket over the conventional prosthesis is that it allows a greater freedom of movement, better control of the leg, since it feels like a normal part of the body, and lack of need for pelvic belts, hip controls and suspenders.

(6) The muscles of the stump hypertrophy and increase their physiologic action with the wearing of a well fitting suction socket.

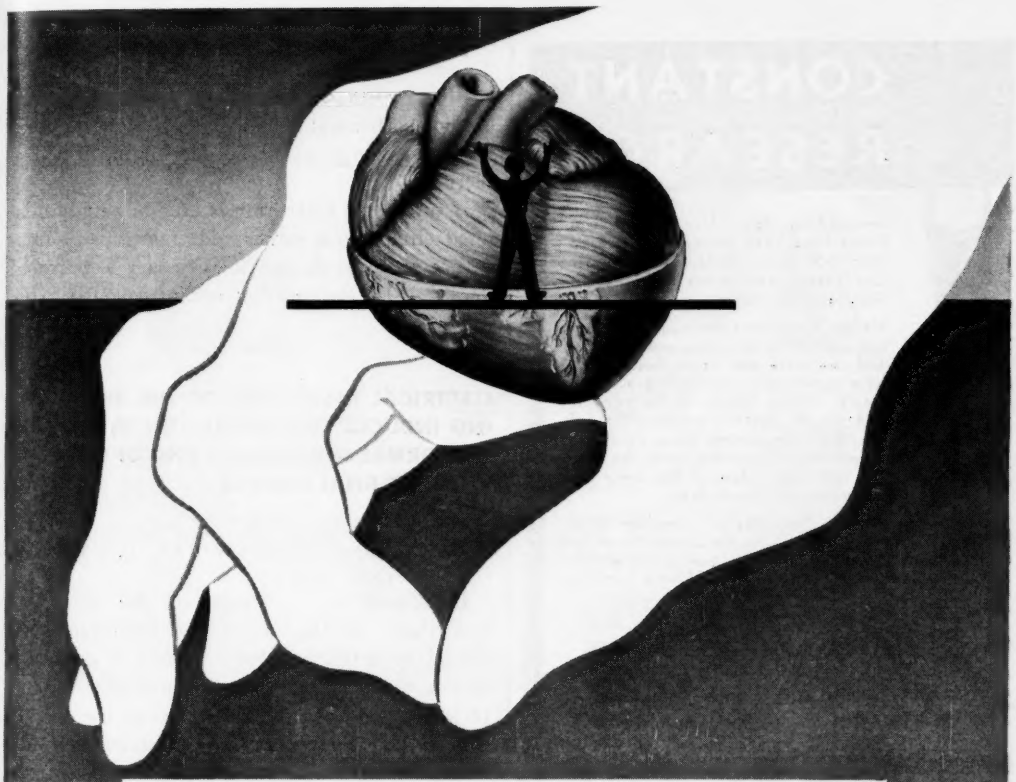
(7) Without the wholehearted cooperation of the patient, limb fitter, corrective therapist and orthopedic surgeon in following through with frequent check-ups during the first year of wear, the suction socket cannot be a success.

TEMPERATURES PRODUCED IN BONE MARROW, BONE AND ADJACENT TISSUES BY ULTRASONIC DIATHERMY: AN EXPERIMENTAL STUDY

Paul A. Nelson, M.D., J. F. Herrick, Ph.D., and Frank H. Krusen, M.D., Rochester, Minn. In ARCHIVES OF PHYSICAL MEDICINE. 31:11: 687. November 1950.

Ultrasonic radiation can produce rather sharply localized heating in living tissues.

(*Continued on page 70*)



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Physical Medicine (Continued)

Ultrasonic radiation causes selective heating of bone cortex and bone marrow as does no other source of energy used thus far for medical diathermy.

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ELECTRICAL RESISTANCE OF THE SKIN DURING INDUCED EMOTIONAL STRESS: A STUDY OF NORMAL INDIVIDUALS AND OF PATIENTS WITH INTERNAL DISEASE

J. M. Van Der Valk, M.D., and J. Groen, M.D. In PSYCHOSOMATIC MEDICINE, 12:5:303, September-October 1950.

By "electrical resistance of the skin" we understand, in this paper, the total resistance offered by the human body when it is connected into a direct current of constant low voltage. It is realized that the resistance of the human body defined in this way is a complicated value, determined, among other things, by external and internal polarization, and by the "true" resistance of the skin. For practical purposes, however, the designation "electrical skin resistance" will be used.

The electrical resistance of the skin against a direct current of constant low voltage was measured in normal individuals and in patients with various internal diseases, under the following circumstances:

(1) Immediately after the connection of the subject into the circuit. The value thus obtained is designated as initial resistance.

(2) When, for ten minutes after the connection of the subject, no external stimuli were applied and the subject was told not to move and not to speak.

(3) During the next fifteen minutes when the subject was asked to answer a set of standard questions.

(4) During an interview in which emotional material from the subject's life history was discussed with him.

The initial resistance was generally found to be high in patients with peptic ulcer, ulcerative

(*Continued on page 74*)

All Children Can Benefit from *this Hot Drink at Breakfast*

The problem of encouraging children to eat an adequate breakfast finds easier solution when Ovaltine in hot milk is recommended as a breakfast beverage. Many children clamor for a hot drink at the morning meal and Hot Ovaltine is the right kind of drink to recommend.

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FAT	10.5 Gm.	COPPER	0.2 mg.	VITAMIN C	10 mg.
CARBOHYDRATE	22 Gm.	VITAMIN A	1000 I.U.	VITAMIN D	140 I.U.
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*Based on average reported values for milk.

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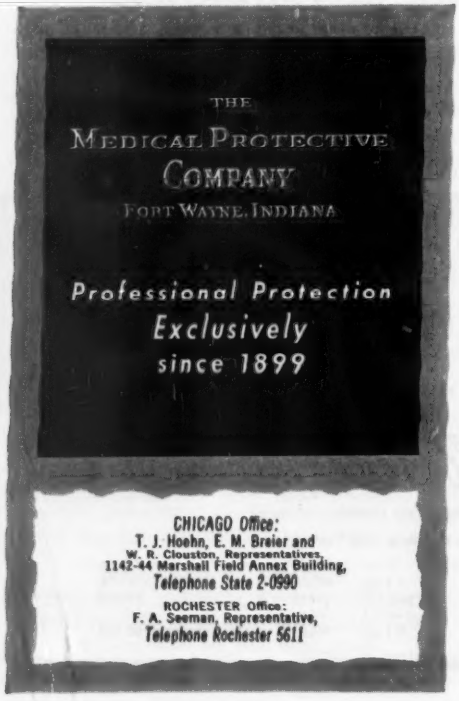


Physical Medicine (Continued)

colitis, diabetes, and some vascular diseases, and low in some other diseases.

During the silent period the resistance usually decreased. It was found to increase when the subject under the circumstances of the experiment was brought into *tension,* by which the authors understand a condition of more or less consciously inhibited discharge of emotion. *It appeared that normal individuals and most* patients only infrequently became tense under *the circumstances of the experiment.* However, in patients with peptic ulcer, ulcerative colitis, diabetes, essential hypertension and peripheral vascular disease, an attitude of tension was readily produced under these circumstances. In these diseases a rise of the electrical resistance was commonly observed.

The answering of the set of standard questions or the discussion of an emotional subject was found to decrease the skin resistance when the subject was given an opportunity to discharge his emotions in this way.

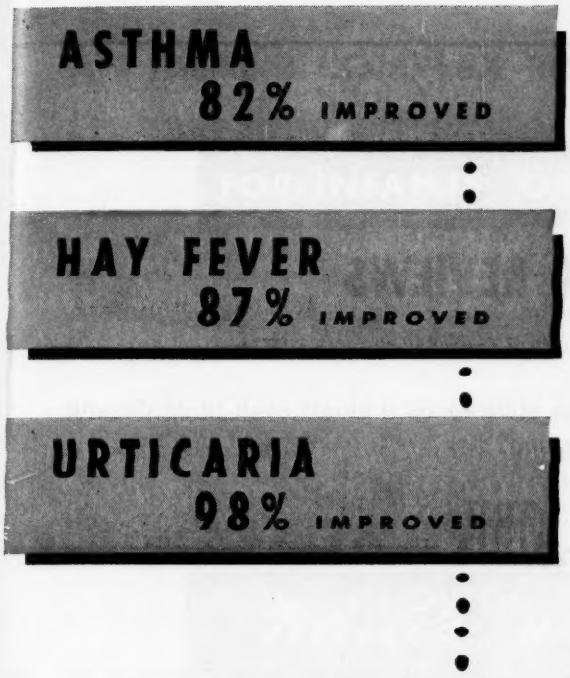
The registration of the skin resistance may be used as a method to measure tension in seemingly quiet individuals.

THE TREATMENT OF PAIN AND "SPASM" IN POLIOMYELITIS WITH "PRISCOLINE"

W. O. Geisler, M.D., W. T. Mustard, M.D., and C. S. Anglin, M.D., Toronto, Ont. In THE CANADIAN MEDICAL ASSOCIATION JOURNAL, 63:1:60, July 1950.

The most damaging effect of poliomyelitis is flaccid paralysis. This paralysis is determined by the extent of anterior horn cell destruction as a result of virus invasion of the central nervous system. There is no available therapy that influences the recovery of the anterior horn cell.

Muscle pain, tenderness and hypertonic contracture in the acute and early convalescent stages of poliomyelitis is a symptom complex of minor consequence in the absence of paralysis. If paralysis is added, this symptom complex becomes more important as a possible factor in producing deformities. From a study of two groups of children demonstrating pain, muscle tenderness and hypertonic contracture with added paralysis as a result of poliomyelitis, we do not feel that priscoline demonstrated any particular value as an adjunct to physical therapy.



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well tolerated

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BOOK REVIEWS

PRINCIPLES OF INTERNAL MEDICINE. T. R. HARRISON, Editor-in-Chief. Editors: Paul B. Beeson, William H. Resnik, George W. Thorn and M. W. Wintrobe. 53 contributors. Blakiston, Philadelphia, 1950. 1590 pages. $12.00.

Even the statistics of this massive new textbook of internal medicine are impressive. It has five editors and 53 contributors. It has 114 tables, 245 figures and 1590 pages. The weight according to my scales is 8¾ lbs. The geographic distribution of the contributors is of interest: 20 are from the south, 15 from the east, 9 from the west, 7 from the midwest, one each from Puerto Rico and England. Thus the majority of the authors are from the south and only one-third of them are easterners. This book is thus an exception to the general rule that most of our medical texts are written by easterners, although let me hastily add that many important texts originate from other parts of the country. The predominance of eastern authors is by no means a disadvantage; still, provincialism is present as much in medical writing as in anything else and in a general text of this kind the presentation of different viewpoints is most suitable. One's viewpoint is bound to be affected by change in geographical location, since it subjects him to new attitudes and different ideas. The transplanted Bostonian may retain his accent but certainly he is at least exposed to new thoughts, and the Kansan who moves east may change his mind although he doesn't change his way of dressing. In this particular book the authors are all capable and distinguished, and many of them are relatively young. This results in a fresher viewpoint than usual. The editors can congratulate themselves that the remarkably high standard of writing is maintained throughout.

The book emphasizes the functional approach to disease, devoting the first five sections to this. The classical approach with primary emphasis on specific diseases is covered in the last two sections.

The introduction, dealing with the approach to the patient, is short but excellent. The last two lines are worth quoting: "The true physician has a Shakespearean breadth of interest in the wise and the foolish, the proud and the humble, the stoic hero and the whining rogue. He cares for people."

Part I, Cardinal Manifestations of Disease, occupies about 1/5 of the book. This section does not merely list symptoms but classifies them into differential diagnosis, including discussion of course and treatment. The charts are especially clear and helpful.

Part II includes Physiological considerations of disease in general. Some of the subjects such as fluid and electrodyte balance, intermediary metabolism and electrophysiology may seem somewhat theoretical and technical, but their understanding is important when one considers that diseases such as diabetes, pellagra and diphtheria are related to disorders of intermediary metabolism.

Part III, Reactions to Stress and Antigenic Substances, summarizes our present knowledge on this new and important subject.

Part IV, Metabolic and Endocrine Disorders, V, Diseases Due to Chemical and Physical Agents, VI, Diseases due to Biologic Agents and VII, Diseases of Organ Systems, are more conventionally arranged.

Throughout the book there is emphasis on basic principles with avoidance of repetition. Little space is given to extended discussion of rare diseases; common conditions are fully discussed. Practical information is abundant. The bibliography is intended to

(*Continued on page 78*)

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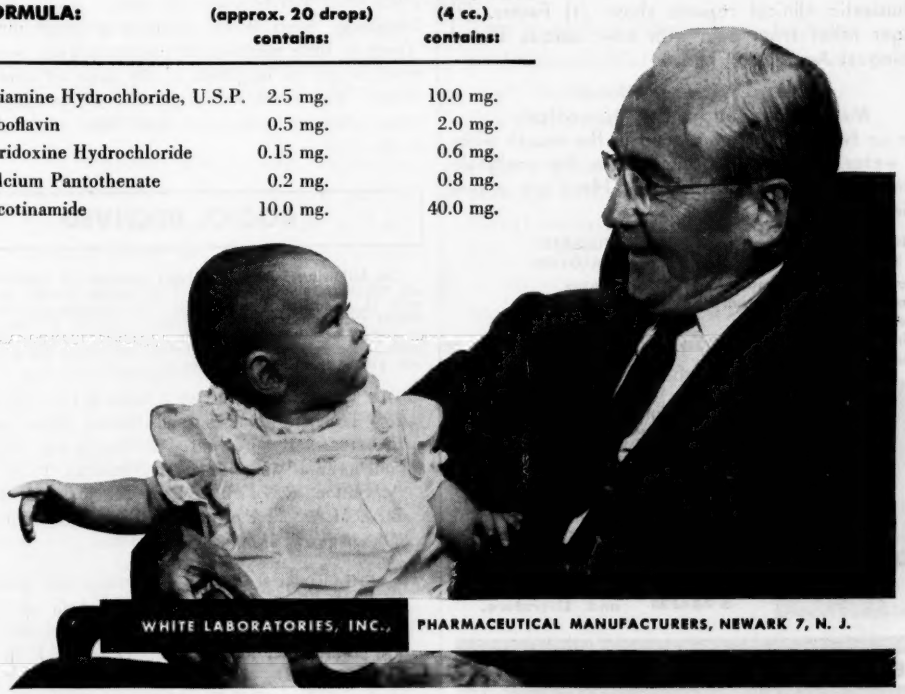
Pyridoxine Hydrochloride	0.15 mg.	0.6 mg.
Calcium Pantothenate	0.2 mg.	0.8 mg.
Nicotinamide	10.0 mg.	40.0 mg.



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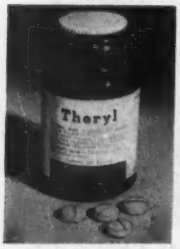
Post-Hemorrhoidectomy	3 minutes
Post-Tonsillectomy	2 minutes
Simple Headache	½ - 3 minutes
Menstrual Pain	5 minutes



Many other dramatic cases reported.

1. Hoffman, Murray M., Ill. Dent. Jl., 19:439-445 (Oct., 1950)

2. McNealy, Raymond W., Ill. Med. Jl., 97:150 (Mar., 1950)

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BOOK REVIEWS (Continued)

be pertinent rather than comprehensive, as is proper in a book of this kind.

This is a remarkable book not only in its modern functional arrangement but also in the detailed consideration of specific problems confronting student and practitioner, and in the emphasis on basic principles so important for an adequate understanding of medicine. The quality of the writing is unusually high for a medical text. I predict that this book will rapidly become a favorite among students, who will overlook its weight and bulkiness. Recommended.

J. C. S.

PRINCIPLES OF GENERAL PSYCHOPATHOLOGY: An Interpretation of the Theoretical Foundations of Psychopathological Concepts. By Siegfried Fischer, M.D., Clinical Instructor in Psychiatry, University of California, formerly professor of psychiatry and neurology, University of Breslau. Philosophical Library, New York, 1950. 327 pages. $4.75.

This book is intended to introduce students of psychopathology. A certain amount of knowledge of psychology is assumed, although some parts of psychology are reviewed where it is necessary for clear understanding.

The book is easier to understand than a good many of its type, although the language in this whole field is, almost by definition, difficult. The sections on intelligence and neurosis are good. Additions to our knowledge from World War II are well integrated. There is little mention of psychoanalysis; indeed the word is not to be found in the table of contents or index. This is an indication that psychoanalysis concepts, although important, have been overemphasized in the past.

J. C. S.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

CHILD PSYCHIATRY IN THE COMMUNITY — A Primer for Teachers, Nurses, and Others Who Care for Children. By Harold A. Greenberg, M.D., in collaboration with Julian H. Pathman, Ph.D., Helen A. Sutton, R.N., B.A., B.S., Marjorie M. Browne, B.A., M.A. G. P. Putnam's Sons, New York, 1950. 296 pages. $3.50.

TOXAEMIAS OF PREGNANCY — Human and Veterinary. Proceedings of the Symposium held in London under the auspices of the Ciba Foundation; Edited by John Hammond, M.A., D.Sc., F.R.S., F. J. Browne, M.D., D.Sc., F.R.C.S., and G. E. W. Wolstenholme, O.B.E., M.B., 93 illustrations; 280

(*Continued on page* 80)

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In the treatment of chronic sinusitis and the acute sinus complications of coryza, Bacitracin-Nasal affords a dual approach.

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1. Prigal, S. J.: Bacteriologic and Epidemiologic Approach to the Treatment of Respiratory Infections with Aerosols of Specific Antibiotics, Bull. N. Y. Acad. Med. 26:282 (Apr.) 1950.

2. Stovin, J. S.: The Use of Bacitracin in the Treatment of Sinusitis and Related Upper Respiratory Infections, New York Physician 32:14 (July) 1949.

3. Prigal, S. J., and Furman, M. L.: The Use of Bacitracin, a New Antibiotic, in Aerosol Form; Preliminary Observations, Ann. Allergy 7:662 (Sept.-Oct.) 1949.

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BOOKS RECEIVED (Continued)

pages. The Blakiston Company, Philadelphia 5, Pa., Toronto 2, Canada, 1951. $4.50.

RECENT ADVANCES IN NUTRITION, with Particular Reference to Protein Metabolism, by Paul R. Cannon, Ph.D., M.D., Chairman of the Department of Pathology, University of Chicago. In collaboration with Earl P. Benditt, M.D., Laurence E. Frazier, M.A., Eleanor M. Humphreys, M.D., Harold C. Steffee, M.D., Ph.D., Robert W. Wissler, M.D., Ph.D., Robert Woolridge, M.A. Porter Lectures, Series 14. 74 pages. University of Kansas Press, Lawrence, Kansas, 1950. $2.00.

SAVILL'S SYSTEM OF CLINICAL MEDICINE — Dealing with the Diagnosis, Prognosis, and Treatment of Disease for Students and Practitioners. Edited by E. C. Warner, M.D., F.R.C.P. Thirteenth Edition. 1198 pages. The Williams & Wilkins Company, Baltimore, 1950. $7.00.

PULMONARY VENTILATION AND ITS PHYSIOLOGICAL REGULATION. By John S. Gray, M.D., Ph.D., Professor of Physiology, Northwestern University Medical School, Chicago, Illinois. Charles C. Thomas, Publisher, Springfield, Illinois, 82 pages. $2.00.

YOUR PROSTATE GLAND — Letters from a Surgeon to his Father. By Reed M. Nesbit, M.D., Professor of Surgery, University of Michigan Medical School, Chief, Section on Urology, University Hospital, Ann Arbor, Michigan. Illustrations by Janet McLaughlin. Charles C. Thomas, Springfield, Illinois, Publisher. 50 pages. $2.00.

TREPHINE TECHNIQUE OF BONE MARROW INFUSTIONS AND TISSUE BIOPSIES. By Henry Turkel, B.A., M.A., M.D., 60 pages. Copies may be procured from Trephine Instruments Inc., 1301 Industrial Bank Bldg., Detroit, Michigan. $1.00 per copy.

THE SCIENCE OF HEALTH — Second Edition. By Florence L. Meredith, B.Sc., M.D., Fellow of the American Medical, American Public Health and American Psychiatric Associations. 48 tables and charts; 134 illustrations; 452 pages. The Blakiston Company, Philadelphia, Pa., 1951. $3.75.

DIATHERMY — The Use of High Frequency Currents. By Stafford L. Osborne, B.P.E., M.S., Ph.D., Professor and Chairman, Department of Physical Medicine, Northwestern University Medical School, Charles C. Thomas, Springfield, Illinois, 1950. $3.00.

During the last twenty years a great and increasing interest has been taken in the incidence of tuberculosis in nurses and the methods to be used in an endeavor to reduce this. It is now clearly recognized that nurses, even in general hospitals where tuberculosis is rigidly excluded, run a far greater risk of developing this disease than do comparable members of the general population. Geoffrey Bewley, M.D. Dubl. F.R.C.P.I., F.R.C.S.I., D.P.H. — The Lancet — March 25, 1950.